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East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

No. 2370

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CEMA SELF-SUFFICIENCY IN FOOD PRODUCTION ANALYZED

Bratislava EKONOMIKA POLNOHOSPODARSTVA in Slovak No 12, Dec 82 pp 570-571

[Article by Eng Prokop Jurasek, ScC, university lecturer, Institute of Economics, Bratislava: "Methodological and Objective Problems in Calculation of the Degree of Self-Sufficiency in Food Production in Agriculture of the CEMA Member Countries"]

[Text] The degree of self-sufficiency in food production may be rightfully considered as one of the most relevant indicators of the standard of agricultural production and as a reflection of the general economic and social progress in a given country.

It is a very complex and delicate matter to assess the condition of self-sufficiency in food production in an international context. Individual countries deal with this problem in various ways because on the worldwide scale as well as within the community of the CEMA countries considerable differences exist in the conditions of production, economic development, consumer traditions, control of individual factors of production and so on.

Isolated natural indicators have usually been applied thus far when comparing the degree of self-sufficiency among individual CEMA countries. It may be true that such indicators are of direct declarative value because if one calculates and then compares how many kilograms of grain, vegetables, fruit, meat, milk, etc., per citizen have been produced, such indicators may be valuable and useful for orientation, but they cannot express the degree of self-sufficiency entirely comprehensively.

Even if we convert these isolated natural indicators to synthetic natural indicators, for example, by means of joules, grain units, etc., it would more or less seriously distort the availability of food per citizen in individual countries because not a single natural conversion coefficient reflects the whole complex of useful value. When converting the degree of self-sufficiency by means of grain units, a certain part of agricultural products, for instance, grain cereals, legumes, etc., may be expressed relatively realistically, while other products, such as vegetables, fruit, meats, etc., are underestimated.

Not one country in the world, not even countries with surplus, have an absolutely ideal material structure of food they produce, in other words, a structure corresponding to certain optimum amounts of the basic types of food per citizen.

When the structure of production in individual countries is converted to per citizen amounts, in some predominate grain cereals, in other vegetables or sugar, meat and so on. Analogically, within the framework of the CEMA countries, one country may have a surplus, for example, grain production in Hungary, vegetable production in Bulgaria, sugar production in Cuba, meat production in Mongolia, etc.

Individual countries in the world, and thus the CEMA countries as well, have various "models" of the degree of self-sufficiency. Such models are related to various opportunities for food production as well as to the structural composition of the food produced, to different consumer traditions, etc. For that reason the calculation of the degree of self-sufficiency is, first of all, something of an "internal" affair of the pertinent countries. Indeed, the degree of self-sufficiency thus calculated is not entirely comparable. If it should follow from the given isolated calculations of the degree of self-sufficiency that, let us say, the CSSR and Mongolia are self-sufficient to the same extent, that extent is comparable neither in terms of the structure nor in terms of the qualitative aspect.

When analyzing the degree of self-sufficiency in individual CEMA countries, we opted for an "untraditional" approach to these problems, which method in all probability has never been used before. Our objective was to determine what is the internationally comparable degree of self-sufficiency in food production in the given countries, irrespective of their domestic surplus or deficit of the given types of food. In a certain sense, this concerned a "compensating" degree of self-sufficiency.

We opted for the value (price) quantification of the degree of self-sufficiency. In our calculations, we applied the so-called average world production (procurement) prices for the 5-year period of 1968-1972 in U. S. dollars and in foreigh-exchange rubles. We proceeded from the fact that such a production price would better express the complex of useful value of the product (foodstuff) in question; the differences in prices of individual products should then also reflect their differences in useful value.

Understandably, there is no internationally applicable price apparatus that would reflect every aspect of useful value. However, let us assume that the price apparatus--which we calculated and applied--reflects the given situation more adequately than natural methods.

Now we shall briefly outline the method of calculation of the degree of self-sufficiency in food production for individual CEMA countries expressed in its value--with the application of uniform production prices.

First we calculated gross agricultural production in individual CEMA countries, in CEMA as a whole, and in other countries of the world. We obtained those quantities by multiplying all appropriate crop and animal products (potentially there are 147 for the countries in the world, and naturally, fewer for individual countries) by production prices. The resultant absolute values of gross agricultural production represent the average for the 1976-1978 period.

Having thus obtained the data on gross agricultural production for each of the CEMA countries, for CEMA as a whole, and for the countries in the world, we began to calculate the value of food production. Although the methodological and material aspect of this calculation is relatively complicated, we shall attempt to explain it as briefly as possible.

From gross agricultural production we deducted all those products of the fodder type (fodders proper, edible grain cereals cultivated for feeding livestock, etc.). Furthermore, we deducted the value of all products that are not used directly or indirectly for food production (crop products designated for the production of alcohol, beer, wine, technological products, wool, hides, etc.). Finally, we made the following corrections: for countries which had achieved an active balance in trade with fodders, we added the value of fodders to the value of animal production. In countries with a passive balance we deducted the value of fodder from animal production.

Having thus calculated the absolute values of food production for every CEMA country, for CEMA as a whole, and for the countries of the world and having divided them by the number of their population, we obtained the value of food production per citizen expressed in U. S. dollars and in exchange rubles. Values thus calculated represent food production from domestic resources and are mutually comparable.

The question now arises as to with what are these values to be related so that we may calculate the degree of self-sufficiency. Any comparison with the world average would be inappropriate, particularly because the world average has thus far been well below optimum food self-sufficiency.

However, even now some countries in the world have achieved a certain optimum standard of nutrition and a balanced structure of their consumption of individual types of food.

We selected 15 countries with the most developed standard of nutrition as a model for the calculation of optimum consumption--self-sufficiency. Among the CEMA countries, the CSSR, the Hungarian People's Republic and the GDR belong in this group; the rest are nonsocialist countries.

After appropriate calculations, the figures were rounded up and we obtained the following amounts of per citizen annual consumption of individual groups (types) of food: grain cereals 120 kg, tuberous crops 80 kg, legumes and nuts 15 kg, vegetable oils 10 kg, sugar 45 kg, vegetables 110 kg, fruit 100 kg, meat and fish 90 kg, milk 350 kg, eggs 15 kg, animal fats 15 kg, other commodities (coffee, cocoa, tea, etc) 10 kg.

After multiplying these amounts by appropriate world production prices we obtained a total of $170 (153 exchange rubles) in conversion per citizen, which amount represents the optimum availability (self-sufficiency) of food production. To that we applied the amounts obtained per citizen for individual CEMA countries, for the CEMA countries as a whole, and for other countries of the world. If this amount is above the optimum, the degree of self-sufficiency in a given country will be over 100 percent; if that amount has not been reached, the degree of self-sufficiency will be under 100 percent.

We shall list individual CEMA countries in sequence, with the first figure representing the value of domestically produced food in exchange rubles and the second figure--in parentheses--representing the achieved degree of self-sufficiency in percent. The situation is as follows: Hungary, 171.9 rubles (112 percent); GDR, 131.2 rubles (86 percent); the CSSR, 125.8 rubles (82 percent); Bulgaria, 123.1 rubles (80 percent); Poland, 120.2 rubles (78 percent); Rumania, 113 rubles (74 percent); USSR, 105.8 rubles (69 percent); Mongolia, 98 rubles (64 percent); Cuba, 93.8 rubles (61 percent); Vietnam, 34.5 rubles (23 percent); CEMA, 103.1 rubles (67 percent); the world, 63.9 rubles (42 percent).

The review indicates that among the CEMA countries, Hungary alone has surpassed the optimum degree of self-sufficiency and thus, it ranks among the group--small in number--of those countries in the world which have practically resolved the problem of nutrition and whose domestic production helps feed people in other parts of the world.

If we regard the 80 percent margin as still adequate and acceptable, we may still assess the situation in the GDR, CSSR and Bulgaria positively, albeit with some reservations. All other CEMA countries are facing certain problems with self-sufficiency; the situation in Cuba is rather disadvantageous and the situation in Vietnam is completely unfavorable.

We should like to underscore once more that the degree of self-sufficiency calculated in this manner--relatively rigorously--reflects the situation in general qualitative, and not quantitative, availability of food. If we say that Vietnam has achieved no more than 23 percent (roughly one-fourth) of the optimum, it does not mean that a Vietnamese citizen obtains no more than one-fourth of the optimum weight of food. In reality he gets about one-half of the optimum weight of food but, unfortunatly, only one-fourth of the qualitative standard in terms of rational nutrition is available to him.

The problem of self-sufficiency with food in the CEMA community may be characterized as one of the key problems, if not the most significant one; it must be, and what is important, it can be, resolved with domestic resources. Alas, the great majority of countries in the world cannot say that they may resolve that problem with their domestic resources.

The fact that the CEMA countries have achieved no more than 67 percent of the optimum degree of self-sufficiency challenges them to mobilize their untapped assets which are without any doubt available there. Any further delay in exploitation of existing resources would be imprudent in terms of economy as well as from the human perspective. It is precisely the resolution of the food situation that at the same time would bring the CEMA countries many related benefits.

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ACHIEVEMENTS, TASKS OF FOREIGN TRADE DISCUSSED

Tirana PROBLEME EKONOMIKE in Albanian No 2 Apr-Jun 82 pp 54-68

[Article by Nago Sinani: "The Achievements and the Tasks of Our Foreign Trade]

[Excerpts] Our foreign trade has played and continues to play an important role in the socialist construction of the country and in strengthening the defense capabilities of the fahterland, in developing all the branches of our economy and culture, in continuously developing the production forces and improving constantly, in revolutionary way, socialist relations in production. Guided by the economic thought of the party and responding to the demands of the basic economic law of socialism, our foreign trade has served and continues to serve the tasks of expanded socialist reproduction such as: a more rapid increase in social production compared to population growth, a rapid increase in the productive sphere as compared to the non-productive sphere, a greater increase in the production of the means of production than the increase in the production of consumer goods; a more rapid increase in national revenues compared with population growth; a more rapid increase in the production of goods for society than the production of goods for one's self; a greater increase in the accumulation fund as compared to the consumption fund, an increase in labor productivity that is greater than the per capita income of the population; a growth in national revenue that is greater than the buying power of the population etc.

On the basis, our foreign trade, in all its activity, is based on and conforms with the objective conditions of our social and economic development. It is perfecting a system of economic ties with other countries, which completely coincides with the goals and tasks of the socialist construction in our land. The commercial and economic relations in our country are in accord with the general policy of our party, and have their source in the economic thought of the party; in the internationalist and socialist character of a government of the dictatorship of the proletarian. The principles and attitudes which characterize the foreign policy of the bourgeois and revisionist countries, such as the seizure of foreign territories, old and new colonialism, trade fights and the exploitation of other countries, and the domination of weak by the strong etc., are alien and unacceptable to our foreign trade. Our trade relations with other countries have always been established on the basis of friendly competition among the peoples of the world, large or small; on the principle of equality and commercial interests, in conflict against imperialism, headed by American imperialism; against social-imperialism headed by Soviet imperialism and in active solidarity with all countries and peoples who fight for freedom, democracy and social progress, and with all peoples and revolutionary forces who fight for the protection of peace and the triumph of socialism.[1]

While the following with determination and consistency the Marxist-Leninist economic policy of our party; implementing continuously and at every stage of our socialist construction the principle of relying on our own forces; "...for the first time in the last years of the past five-year period (the sixth five-year period) our economy balanced all necessary imports with exports. This balance was achieved without adversely affecting the pace of our economic development or the standards of living of our people. This is another historic victory of our people and our party on the path to the complete construction of the socialist society, and a true expression of the economic strength of our nation".[2]

This victory can only be achieved in a truly socialist country like our own. This did not happen by itself, nor is it a phenomenon conditioned by the market factors created by foreign trade, which is the way our imperialist and revisionist enemies consider it, because they are envious and frightened by the example set by little Albania, where socialism is a living reality which moves forward without stopping. This victory, like all the other imposing achievements of the 38 years of the people's government, has its source in the internal, economic and social factors prevailing in our country. Our party relying on these factors, knowing and correctly evaluating them, perfected a revolutionary Marxist-Leninist economic policy. The party's economic thought on foreign trade not only relied on these internal factors, but exploited them carefully and with foresight for the benefit of socialist construction in the country. The party prepared this victory step by step as a strategic goal, which was derived from the great principle of the absolute need to rely on our own forces. The party put it together and realized it in a graduated dynamic process, which would lead in a very natural way, as it did, to the balancing of exports with imports.

Our foreign trade has developed and advanced parallel to the development of all the branches of our socialist economy. It is based on Marxism-Leninism and has always implemented the principles of proletarian internationalism of equality, and national sovereignty and common interests among nations. The principles of our foreign trade are: equality and mutual benefit, non-intervention in internal affairs, the preservation of sovereignty, the rejection of all credits from abroad, no trade relations with the superpowers, with fascist and racist nations and with imperialist-revisionist groups. We make long term agreements with the countries we deal with, for the exchange of goods and payments, for transportation and services, and all matters that have to do with this area. Our foreign trade has been guided and will always continue to guided by the policies of our party and our socialist state. "Our socialist state--Enver Hoxha emphasized at the Eighth Party Congress--has been and is for the normal and free development of international trade, based on equality and reciprocal benefit. Our country is for equal trade exchanges, without discrimination or restrictions. For this reason we have come out against unequal relations in trade exchanges, against price manipulations and, in general, against the machinations and attempts of anyone who seeks to utilize trade relations as a means of pressure to impose his will and his political views upon another country."[3]

The modern Khrushchevite, Titoist and Chinese revisionists degraded and subverted the Leninist norms of economic relations among nations by replacing the proletarina dictatorship with the bourgeois dictatorship under the slogan of a state for all the people, and replacing socialist social ownership of the means of production with a capitalist ownership of a special type, which belongs to the new bureaucratic and technocratic bourgeoisie. The principles of equality, of independence, of sovereignty and territorial integrity, reciprocal advantages, peaceful coexistence (non-ideological) with countries of different social systems, of cooperation and reciprocal aid between socialist countries were by the revisionists and were replaced by general coexistence (political and ideological,) by the integration of capitalism and socialism, by submission, exploitation and hegemony, by "limited sovereighty" and "limited international social ownership"; by the dictatorship of the strongest over the weakest, using the club of control. In economic and trade relations, the revisionists, supposedly to eliminate duplication and guarantee trade, implement the idea of "deepened" specialization and cooperation, "the international socialist division of labor", "international social ownership", "limited sovereignty" and "socialist unity". Plunging deeper and deeper in the grinding gears of the capitalist world economy, in the revisionist countries the doors are wide open to foreign monopolistic capital, to multinational societies and private banks. The state monopoly over foreign trade is no longer the only one that regulates all foreign trade with other countries. Private companies act and behave as they please, apart from any state control or plan. This is an indicator of the degeneration of the socialist order in those countries, the denial of the most general laws of socialist construction, which, our party through practice is testing in life and further enriching in accordance with the actual conditions in our country, which moves forward destroying encirclements and blockades completely with our own forces.

The classics of Marxism-Leninism solved it theoretically, and the experience of socialist construction in the Soviet Union (at the time of Lenin and Stalin) and in our country, have now completely confirmed that the imposition of state monopoly on foreign trade is a necessary revolutionary measure, which has to be implemented by the state of the dictatorship of the proletariat. This monopoly prevents the intervention of foreign capital, and closes the vital channel of this intervention which has serious consequences for the political independence and the economy of the country. State monopoly protects the economy from spontaneity and the destructive consequences of cyclical development, and the crises of the capitalist and revisionist world. Thus, the establishment of state monopoly is the only way in which foreign trade can be used for the successful construction of socialism. The party had this legality in mind from the very first program it implemented during the National Liberation War, before the whole country was liberated completely. Naturally, in the concrete historical conditions of the country's development, the establishment of state monopoly of foreign trade has its own characteristics. Therefore, this monopoly was not established at once in all its dimensions and manifestations which are derived from the character of socialist social ownership over the means of production. Foreign trade was put at the disposal of the people's revolution and the socialist construction of the country, first, through state control, and later by establishing state monopoly over the entire foreign trade activity in the country.

The bases of state control over foreign trade were legalized at the first meeting of the Anti-Fascist National Liberation Council on 24 May 1944 in Permet, with a historical resolution to reexamine and cancel all the agreements that were made by Zog's government to the detriment of the Albanian people. This resolution was finalized in August or September of that same year, with clear instructions as to the organization and the exercise of control over the exchange of goods between the liberated zones of Albania and other countries. After the total liberation of the fatherland was completed, in December 1944, a law was put into effect which prevented the export of precious metals and stones, as well as the export of any goods whatsoever without the permission of the Ministry of Economy. This law generally and permanently established the direct control of the state over foreign trade.[4]

In February 1946 the Fifth Plenum of the Central Committee of the PPSH (Albanian Workers Party) took place. It denounced and demolished the rightist opportunism of Sejfulla Maleshova, whose goal was to develop foreign trade relations with capitalist countries and leave the handling of it to private capitalist elements. However, "the control over the private sector of the economy will, for a time, be exercised by limited foreign and internal trade--Comrade Enver Hoxha directed. The state must be the only one to have foreign trade relations (this was stressed), whereas, in domestic trade the state must exercise control over all the most important goods."[5]

With the nationalization of banks, industry and the means of communications; the implementation of revolutionary measures, which expropriated bourgeois industry, trade and agriculture, economic opportunities were created and state monopoly of foreign trade was established; responsible organs were created that would define the structure and volume of import-export goods, by primarily considering the capabilities and the needs of the country and keeping in mind the demands of the economic laws of socialism, the world trade situation, and that of the countries with whom trade agreements were to be established.

Establishing state monopoly over foreign trade and concentrating all its activities in the hands of the state, censuring and cancelling all enslaving understandings and agreements with foreign countries, protected our economy from being flooded, without reason, with foreign goods, and also protected it from the influences of spontaneous capitalist and revisionist world trade and from unrestrained price increases etc.

The experience of socialist construction in Albania shows the establishment of state monopoly over foreign trade to be a very important and principled matter, which can only be realized under the condition of the dictatorship of the proletariat, which is guided by a truly Marxist-Leninist party. This principle has made it possible and still makes it possible, to protect the rapid development of our economy, and also helps to create new important possibilities for broadening barter relations, as has been proven in Albania where true socialism is successfully being built.

When foreign trade fails to implement Marxist-Leninist principles of development, and when the principle of state monopoly over foreign trade is trampled etc., even in a country where the socialist relations in production existed, the process of the degernation of these relations into capitalist relations occurs and becomes rapid. This is what happened in the Soviet Union, China and Yugoslavia and other revisionist countries, where foreign trade has become a tool in the hands of bourgeois-revisionists to deepen political, ideological and moral degeneration by opening doors to monopolies, accepting credits and goods from abroad which are only appropriate to the capitalist way of life.

To justify the replacement of state monopoly of foreign trade, the Khruchshevite, Chinese and Yugoslav revisionists etc., seek to propagandize the "theory of free economic relations". According to this theory, trade relations must be based on the "spontaneity of free trade". The Chinese revisionists declare: "Trade relations with the large monopolies can prevent conflicts between the imperialist powers"! etc.

Our state of the dictatorship of the proletariat destroyed the economic base of the old society and wiped out capitalist relations in all sectors of the country's economy. The socialist relations created in foreign trade are based on social ownership over the means of production. Foreign trade has become a new trading system, which actively and powerfully helps the development of our socialist economy and culture. According to the directives of the PPSH, and the teachings of Comrade Enver Hoxha, foreign trade has helped to ensure and continues to help to ensure the independent economic development of the country. It confronted and is successfully confronting the obstacles, boycotts, blockades and the great difficulties which are created againt us by the imperialists and the revisionists, and it confronted the sabotage of our work by enemies inside and outside the country.

After the liberation of the country, until 1948, the role of our foreign trade had been relatively limited. Trade exchanges with other countries between 1945-1946 were minor. Foreign trade was just getting on its feet. But, in 1947 and 1948 the exchange of goods reached the 1938 levels.[6] Nevertheless, the annual average volume of goods in circulation for the four years 1945-1948 was only 63 percent of the volume of 1938. This was influenced directly by the hostile interference in the internal affairs of our country by Yugoslav revisionists.

Their goal was to develop our economy as an extension of the Yugoslav economy, to obstruct the socialist industrialization in our land, and to use the wealth of our soil and sub-soil as raw materials for the "Yugoslav metropolis". Through unequal exchanges they attempted to harshly exploit our working masses and our natural wealth. They tried to isolate our country from the rest of the world and to prevent it from creating and strengthening political and economic ties with other nations, primarily with the former Soviet Union and the former socialist countries.

Regardless of the hostile attitudes of the Chinese revisionists, who in 1979 cut off all our credits and broke off all economic and commercial relations with our country, our foriegn trade successfully confronted the demands of our economy by finding new trading partners for 50 percent of the trade which previously was carried out with China. Thus responding to our needs and the needs of our export trade; finding markets for all our goods, 70 percent of which were ready-made products. Because of the good work done by the party and the people, the consequences of the dangerous and harmful activities of Abdyl Kellezi and Koco Theodhosi, and others, were fought and liquidated.

In the course of the Sixth Five-Year Plan our foreign trade was enriched by new experiences: it met and surmounted many obstacles and difficulties, it strengthened belief in its own capabilities, in the great inexhaustible ability our economy has to cover all imports with its own exports, in its ability to meet all the needs of the country and the expanding socialist reproduction from internal reserves, without foreign "aid" and credits. We have begun to trade with many countries on the basis of equality and mutual benefit, with market prices, passing to a brisk trade which exploits all the possibilities and advantages derived from a free currency trade. The party slogan "without export there is no import" increased efforts and mobilized everyone, forced foreign trade to overcome all difficulties and develop continually to become strong and steellike for the coming battles.

At the close of the Seventh Five-Year Plan the export of goods is anticipated to be 58 to 60 percent higher than in 1980, whereas, imports will increase by 56 to 58 percent. The majority of our imports, about 53 percent, will be for machinery and certain raw materials necessary for the expansion of production at home. With the progressive development of production, the specific weight of machinery and equipment will grow even more, while the specific weight of raw materials and other materials which are imported will decrease.

Because of the efforts to implement the recommendations of the party and the tasks defined by the Eighth Congress there has been an increase in our foreign trade. Our country now trades with more than fifty nations in different parts of the world, especially with countries in Europe, Asia, Africa and Latin America. In the last few years goods have been sold in fifteen more countries. With the exception of the United States, the Soviet Union and certain other countries ruled by fascist or racist governments, with whom our country has no relations at all, trade with other nations will expand even more based on mutual advantage. During the seventh five-year plan our foreign trade will concentrate on certain principal tasks, which are connected with the fulfillment of the export-import plan and the improvement of the effectiveness of foreign trade.

First, our trade will make a concentrated effort to see that the rate of growth of our exports exceeds the rate of growth of our imports. The volume of our foreign trade has grown and continues to grow at a fast rate. In 1960, as compared to 1938, our exports increased seven times, in 1970 they increased 13 times and in 1975 they increased 22 times.

The directives of the Eighth Congress of the AWP for the Seventh Five-Year Plan state: "The volume of circulation of goods in foreign trade in 1985, as compared with 1980, must grow by 57 to 59 percent, giving priority to exports over imports, so that the export-import balance will assure an increase in the hard currency reserves of the country."[7]

This rate of growth in our foreign trade is proof of the continuing increase and improvement of our socialist, industrial and agricultural product. It is based on social ownership, on planned development, without crises, inflation or other negative phenomena; it is based on the selfless efforts of our workers to overcome difficulties and obstacles.

The export plan for the seventh five-year plan assigns an important role to the export of fuels, such as petroleum, gasoil, bitumen etc., electrical energy, chrome, ferrochrome, basic nickel carbonate, tobacco, fresh and canned vegetables; new minerals and other industrial and agricultural goods for which world trade, regardless of the situations which may prevail, has constant need. Meanwhile, new materials will also be exported, minerals and different products such as, for example, quartz, dolomite, olivine, magnesite, bauxite, nickel-silicate, alabaster etc. At the same time, the structure of imported goods will continue to improve. In addition to raw and other materials, finished and partially finished goods will be imported. During the seventh five-year plan, as Comrade Enver Hoxha said at the Eighth Party Congress, "...the directives of the party will be realized at a higher and more complete level when the majority of our imports, around 93 percent will be machinery and certain raw and other materials needed to expand production at home. With the development of our production there will be an increase in the specific weight of machinery and equipment, and a decrease in the specific weight of imported raw materials and other materials."[8] This tendency in the development of our foreign trade speaks about the strength of our many-branched economy, its powers of accumulation and the assured prospects of its development. Our economy today satisfies over 85 percent of the needs of the country for consumer goods. It is anticipated that by 1985 this number will be even higher. The results of 1981, the first year of the seventh five-year plan, and the results of the first quarter of 1982 are irrefutable proof in practice of what was anticipated. Our exports not only cover all imports, but the increase in the number of goods exported was higher than the increase in the number of imported goods, meeting in quantity and structure the demands of our economy for imported materials.

Secondly, it is the responsibility of the foreign trade organs to break the blockade and export everything which our country produces for foreign markets, and import goods that are needed by our economy for the socialist construction in our country in general. Our country has built and continues to build socialism while surrounded by imperialists and revisionists. The pressures against our country are continuous. The dangers are not imaginary, but real and savage. Our country is not detached from the world that surrounds us, we are not developing an autarlical, closed economy, without ties and commerce with other countries. While increasing social production, by relying on our own strength and capabilities, we have penetrated many world markets. The brand "Made In Albania" has become well known. Our goods have a good reputation and are in demand in many countries. In this way our ties and relations have expanded. Our country is not isolated nor is it developing a closed economy as the bourgeois-revisionist propaganda maintains. This is born out by the volume of trade which has increased from year to year.

Before liberation, cheese was the principal article of export, which, together with eggs, made up around 25 percent of the volume of our exports. But after liberation, with the change in the structure of social production, the structure of exports changed radically. At the end of 1970, finished goods made up 58.7 percent of the volume of exports; at the end of the sixth five-year plan, they were 70 percent and during the seventh five-year plan, they will account for 73 percent of all goods that are exported.

In this manner our resources will grow and will assure the financial means to confront the need for imported machinery and equipment which is vital to the important works that will be built during the seventh five-year plan, such as the hydroelectric power plant in Koman, the lubricating oil plant, the nickel-cobalt plant, the seamless tubing plant, the gasoline refining plant, the welded tubing plant, 80 complete projects and almost 220 reconstructions and expansions of existing plants and factories etc.

One of the most important aspects of our economy is to assure foreign currency resources, the other aspect is to use this currency with great thrift for the most important needs, and only when there is absolutely no possibility of producing the needed parts domestically. The directives of the Eighth Party Congress of the PPSH for the seventh five-year plan state: "Continuous measures must be taken to decrease to the maximum the import of raw materials and other materials, machinery and equipment etc. We must import only the most vital parts. The norms for using raw materials and other materials which are imported must be lowered. They should be replaced by raw materials and other materials that can be produced at home. Nothing should be imported, machinery or equipment, or any other thing which is produced or can be produced within the country, or without first exploiting completely everything that is already in use."[9]

Third, foreign trade has the task of providing a system of commerce that is financially advantageous, and to implement the party's recommendation that "we must sell then must buy, not buy and then sell". This can be done by increasing the number of markets and companies we deal with. The expansion of markets is dictated by the need to break the blockade, as well as the requirement that possibility to sell and buy in different markets at the most advantageous prices never be limited.

Expanding relations and increasing markets involves two aspects of our foreign trade: efforts to enter markets and trade with countries we have never traded with before, especially in some countries in Asia, Africa and Latin America; and efforts to maintain existing trade relations. This primarily, demands that on every occasion and in every cell of our economy, the plan for the production of goods for export should be realized. Now, it has become clear to everyone that, without selling, we cannot buy. This is a very acute and very special task for our country where we are building socialism by relying completely on our own froces, against blockades and encirclements, without aid and credits from abroad. The failure to fulfill tasks, no matter where it happens, has serious consequences which are felt in every link of that unique chain which is our socialist economy.

The capitalist revisionist market needs goods. It has a great need for our goods also. Therefore, the Eighth Party Congress set the task, not only to realize the tasks of the plan completely, but also to exploit to the maximum all the reserves no matter where they are, and to increase our exports in volume and in articles for export. No matter whether the demand is for bauxite, quartz, dolomite, gypsum or a 140 cm-wide piece of alabaster, or even frogs, etc. Here we should concentrate our attention a little more on exploiting and developing new reserves, because with a ton of frogs, for example, we can assure 25 refrigerators; with a ton of thistle we can have 10 quintals of cotton or 55 quintals of rice etc.

However, these tasks cannot be achieved successfully, if the quality of our export goods is defective, if it does not completely meet the tastes and needs of our foriegn buyers, not only as a product, but also in the packing, ticketing and marking of the products, in size and fit etc. The problem of quality is not a simple one. When this concerns goods for foreign trade the problem becomes even more acute. Poor quality goods create serious losses for the economy, foreign firms depart and do not knock at our doors again.

Calculations show, for example, that by improving the quality of the mineral chrome by one percentage point around 16,000 bicycles a year will be obtained. First-quality tobacco sells for six times the price of sixth grade tobacco etc.

"Good quality merchandise sold abroad--Comrade Enver Hoxha has said--not only is a good source of revenue for our economy, but is good propaganda for our country, because through our goods people judge the level of our technology, our taste, our ability, the level of our culture, our attention to detail, and our honesty and the many, many true virtues of our people..."10

Guided by the recommendations of the party and the teachings of Comrade Enver Hoxha, and struggling to put into effect the historic decisions of the Eighth Party Congress, our foreign trade will achieve new successes and will make the contribution which is necessary to successfully realize the objectives specified for the seventh five-year plan, such as to develop our production forces, perfect our socialist relations in production, construct socialism and strengthen the defense capabilities of the country. In many workers collectives, revolutionary activities have been initiated and are continuing to be initiated to save raw materials and other materials, by replacing them with materials that are produced at home, to produce machinery and equipment with our own forces, to increase the amount of articles and goods for export, which will make the export-import balance of our economy more and more active and increase the hard currency reserves of our country. These achievements and the successful realization of the tasks for the seventh five-year period will strengthen even more our foreign trade and will raise its authority in the world.

FOOTNOTES

1. Enver Hoxha, Report to the Fifth Congress of the PPSH, [Albanian Workers Party], second edition, Tirana 1966, p 30.

2. Enver Hoxha, Report to the Eighth Congress of the PPSH, [AWP], Tirana 1981, p 47.

3. Enver Hoxha, Report to the Eighth Congress of the PPSH [AWP], p 187.

4. GAZETA ZYRTARE, No 20 dated 23/12/1944.

5. Enver Hoxha, Works, Vol 3, p 270-271.

6. Statistical Yearbook of the RPSH [People's Socialist Republic of Albania] 1964, p 315.

7. The review PROBLEME EKONOMIKE, 1981, No 4, p 93.

8. Enver Hoxha, Report to the Eighth Congress of the PPSH, [Albanian Workers Party], p 48.

9. The review PROBLEME EKONOMIKE, 1981, No 4, p 93.

10. Enver Hoxha, Reports and Speeches 1965-1966, p 53.

6160
CSO: 2100/18

TAXATION OF INCOME FROM PRIVATE SERVICES RELAXED

Prague RUDE PRAVO in Czech 21 Dec 82 p 5

[Article by MB: "Support to Services--Law on Income Taxes Revised"]

[Text] The December Plenary Session of the Federal Assembly passed several financial laws, among them a revision of the law on income tax. The present system of taxing incomes of persons providing services and work at their own expenses is incorporated in Law No 145/1961 of SBIRKA (LEGAL GAZETTE) and in its execution provisions. The tax is based on the difference between the taxpayer's total income and his expenses.

Taxpayers who have been licensed by national committees to provide paid services according to Principles No 20/1965 SBIRKA (LEGAL GAZETTE) for providing services and repairs for citizens on the basis of a license issued by national committees, may pay the income tax in flat-rate payments when their expected income does not exceed Kcs 20,000. However, they have been required to keep records of their daily intakes and expenses and to submit them to the national committee, which determines the flat-rate tax for each year equal to 5 - 65 percent of the tax basis, according to the previous year's income.

In order to stimulate further development of services, the Czechoslovak Federal Government (as well as the governments of both republics) passed principles in March this year for more effective management and greater flexibility in providing paid services.

The Sixth Plenum of the CPCZ Central Committee dealt with similar problems. They emphasized that although the decisive role in providing services is played by socialist organizations, primarily service enterprises managed by national committees and manufacturing cooperatives, it appears necessary that national committees complement services provided to citizens to a larger extent, taking advantage of small premises and facilities managed by national committees, or issuing service licenses to individual citizens. The introduction of all these forms of providing services and corresponding finance and tax instruments must be directed to taking advantage of people's interests and initiative, including various local resources, which will result in improved services.

To increase the interest of individual citizens in providing services in short supply, it is necessary to create favorable material and tax conditions. Therefore, the newly revised law on the income tax is a consistent response to the new situation and provides tax advantages for citizens who render services based on licenses from national committees.

The entire concept in the new taxes on these incomes is based on the principle that it is necessary to create conditions equal or similar to those of regular employment. Up to a certain level, the service taxes are equal to the level of wage taxes, i.e. approximately 20 percent. Only high incomes are taxed progressively more heavily. Since pensioners and disabled citizens are expected to join in providing services in short supply and their incomes will be relatively low, the revised law gives national committees wide authority to make allowances or possibly to grant exemptions from the income tax.

The legislative adjustment is mainly intended to stimulate further development of services and better satisfaction of the population's needs in individual communities, while avoiding extensive financial investments. The revision is progressive and corresponds fully to new needs and conditions of the socialist society.

9814
CSO: 2400/111

BALANCED CSR BUDGET FOR 1983 APPROVED

Prague RUDE PRAVO in Czech 21 Dec 82 pp 1, 2

[Unsigned article: "CSR Budget for 1983 Approved"]

[Text] The seventh plenary meeting of the Czech National Council lasting two days began in the morning of Monday 20 December 1982. The main item on the agenda was the government-sponsored bill on the CSR state budget for 1983. Josef Kempny, member of the Presidium of the CPCZ Central Committee and CNR [Czech National Council] chairman, bade welcome to Josef Korcak, CPCZ Central Committee Presidium member and head of the CSR Government, members of the Czech Government and representatives of other central organs, political parties and mass organization of the CSR National Front.

At the beginning of the meeting the participants honored the memory of L.I. Brezhnev. "The Czechoslovak people," said CNR Chairman Josef Kempny, "lost in him a sincere friend who had taken part in the liberation of our fatherland and who by his advice and assistance contributed to our effort to build and consolidate a new social system in our country."

The participants likewise paid hommage to Zdenek Zuska, deputy head of the CSR Government, who had met a tragic death three days earlier.

The deputies then discussed the CNR-sponsored bill on the CSR state budget for 1983.

The total revenues and expenditures amounting to Kcs 139,003,010,000 were balanced.

The revenues included the subsidies from the state budget of the Czechoslovak federation in the amount of Kcs 65,973,700,000 and direct revenues in the amount of Kcs 73,029,310,000.

The expenditures included direct expenditures in the amount of Kcs 95,434,810,000, general grants to the national committees in the amount of Kcs 23,887,600,000 and special-purpose subsidies to the national committees in the amount of Kcs 19,680,800,000.

CSR Finance Minister Jaroslav Tlapak spoke in support of the government-sponsored budget bill.

Report of the Minister of Finance

According to the minister of finance, the budget for 1983 observes the basic proportions and approaches approved in the CSR budget estimates for the 1981-85 period. It provides for the production of necessary financial resources and aims at the more intensive utilization of all production factors. At the same time, it observes greater economy, creates harmony between the material and value processes, strengthens the balance of the economic outlook and stability of the Czechoslovak currency.

The revenues and expenditures of the state budget are balanced and planned in the amount of Kcs 139 billion. The ratio of direct revenues in financing of expenditures of the CSR state budget will increase, in comparison with 1982, two points--to 52.5 percent.

The obligatory levies by the economic organizations play a key part in the increase in direct revenues. In comparison with 1982, they will increase 12.3 percent in 1983 and their main part, based on economic results, will increase 3.7 percent. Personal earnings register only a slight 1.8 percent increase.

The dynamism of budget revenues in 1983 is derived from the increased production of financial resources in the state economic organizations. We presume that profit will increase 7 percent, 78 percent of which will result from cost reduction and 22 percent from increased outputs.

We have earmarked 14.3 percent of total budget expenditures for the needs of centrally managed economic organizations, 1.5 percent for advancement of science and technology, 43.2 percent for social services and activities for the population, 1 percent for administration and 31.4 percent for subsidies and grants to the budgets of national committees. Other expenditures account for the rest.

In accordance with the Set of Measures, we insist on greater khozraschet independence of enterprises and thus also on greater self-sufficiency in financing needs.

A total of 55,700 apartments are to be completed in the CSR in 1983, providing modern housing for more than 140,000 persons. Capital investment cost of comprehensive housing construction will amount to Kcs 11.5 billion. Planned construction of apartments including technical fixtures and public facilities is assured. The budget will provide Kcs 8 billion for this construction, while the rest will be financed by credit and enterprise and individual funds.

Noninvestment funds in the budget earmarked for the advancement of science and technology are related to the state plan of development of science and technology. This plan for 1983 contains 125 research and development projects aimed at the solution of urgent economic problems. Kcs 1.8 billion or 45 percent of all budget expenditures are to be spent in this field.

We shall spend more than Kcs 20 billion on satisfaction of agricultural needs. Although relatively good results were achieved in agriculture in 1982, it will be necessary to take another step toward an increase in agricultural production and higher agricultural efficiency in 1983.

The budget administration positively reflects the implementation of the Economy Program which the CSR Government adopted. One of its basic tasks is the gradual reduction of the administrative apparatus in the production and nonproduction sphere. This reduction will involve a total of 30,872 persons or more than 10 percent of the total number of workers in this area.

We have earmarked Kcs 56.6 billion for social welfare. We shall pay a total of 2.8 million benefits, including 1.3 million retirement benefits in the average monthly amount of Kcs 1,280. We have earmarked more than Kcs 17 billion for health insurance. The expenditures on the allowances for children and maternity benefits will amount to almost Kcs 11.5 billion, while the state contributions to the newborn children carried out through the reduction of loans to newlyweds will exceed Kcs 300 million. The budget will contribute Kcs 15.3 billion to the school system. Expenditures on health care will increase 2.3 percent and will amount to Kcs 15.3 billion or Kcs 1,435 per capita. The government will continue to pursue a purposeful cultural policy in the future. The budget will provide Kcs 2.6 billion for the main tasks in this field.

The budgets of national committees will amount to Kcs 70 billion in 1983 which represents more than 42 percent of the entire volume of the CSR budget system. In the investment part of the "Z" [community self-improvement] project, work in the value of almost Kcs 2.2 billion is to be produced in 1983, 35 percent of which is to be accomplished by voluntary work of citizens.

The common rapporteur for CNR committees, Deputy Miroslav Mrazek, also recommended adoption of the budget for 1983 in the proposed version. According to him, the budget creates in the financial area the prerequisites for the implementation of pertinent goals of the state plan and aims at the support of its key tasks. Among the most challenging tasks is the further increase in production efficiency. The principles of the Set of Measures will have to be applied by management more consistently, on a much larger scale and in a creative way. Above all, it will be necessary to strengthen the khozraschet responsibility of enterprises and VHJ [economic production units] for supplying the national economy with certain products and to promote greater adaptability of the entire economy accordingly.

In connection with the importance of profit as the basic source of revenues, the rapporteur emphasized the mobilizing task of the inventory turnover indicator. The fundamental requirement for achieving the required efficiency increase was the manufacture only of those products which could be sold and not of products which had to be discarded after a certain period of time or could be sold only with difficulty.

Housing construction gave rise to many problems. In comparison with the guideline, comprehensive housing construction lags behind even in the plan for next year. Despite the priority assigned to Prague and the North Bohemia Kraj, it is precisely in these areas that construction is behind schedule.

Discussion

The first participant in the discussion, Deputy Jana Klasova, among other things pointed out that the shortages in commodity supplies to the domestic market which contributed to the nonfulfillment of the retail trade turnover plan this year were being eliminated very slowly and would obviously also exist next year.

Deputy Jiri Fleyberk mentioned the necessity of expanding, on a priority basis, the services paid for by the population and, in connection with the investment part of the "Z" project, emphasized the possibility of mandatory merger of financial funds.

Deputy Jaromir Pliva spoke of considerable consumption of building materials. He drew attention to the difficulties in cement supply, the inadequate maintenance of panel houses and the slow rate of modernization of older houses. He asked CSR Construction Minister Karel Polak to state in writing how his ministry intended to solve these basic problems.

Deputy Josef Meier, among other things, expressed his dissatisfaction with the work of STS [state tractor stations] which should more effectively assist in reducing the cost of agricultural production and restrict their operations for other sectors.

Speaking of the necessity to increase export competitiveness of our industrial products, Deputy Ladislav Matejka at the same time asked CSR Industry Minister Miroslav Kapoun about the present trend of inventories in his ministry and about the measures which were planned for improving the situation. Deputy Jaroslav Henzl dealt with the problems of health care, pharmaceutical production, social welfare and reduction of absenteeism because of illness and injuries. He then asked Health Minister Jaroslav Prokopec whether the funds earmarked for his ministry in the budget made it possible to fulfill all tasks of health care policy.

The necessity to more effectively adapt our school system to the needs of scientific-technological progress and to give preference to technical disciplines was emphasized by Deputy Frantisek Pribyl, while the last participant in the discussion, Deputy Jan Hlusi, gave specific examples to show that despite some progress in the conservation of fuels, energy and metals the prerequisites were not yet created for reducing material and energy consumption in the manufacturing sector.

10501
CSO: 2400/110

COOPERATION WITH USSR IN ENGINEERING, ELECTROTECHNOLOGY CRITICIZED

Prague JEMNA MECHANIKA A OPTIKA in Czech No 11, Nov 82 pp 281-283

[Unsigned lead article: "Czechoslovak-Soviet Economic Cooperation in Engineering and Electrical Engineering on a Higher Level"]

[Text] Czechoslovak engineering is a key branch of the economy, and also a key branch of Czechoslovak export to, and of cooperation with, the socialist countries. It has a series of successes to its credit and has solved many of the economy's basic problems. Czechoslovak engineering--together with metallurgy as its material base--is the largest production complex within Czechoslovak industry. Its relative weight has increased particularly in the period of building socialism. Its share of total Czechoslovak industrial output was 23.3 percent at the end of the first republic, but already 41.7 percent in 1980. In 1980, it accounted for 47.5 percent of the total employment and 32 percent of the total fixed assets held in Czechoslovak industry.

At the present time, however, the development of Czechoslovak engineering is encountering difficulties that are related to internal causes as well as external ones, i.e., to the problems of the other branches and to the crisis phenomena abroad. In a nutshell, the main problem for the economy and primarily for engineering stems from the fact that if we are to obtain more raw materials for the Czechoslovak economy, they must be imported from capitalist countries, and the increase in the import bill must be paid for with exports of machinery. Naturally, foreign debt can be included in various ways in the solution of this problem. But if the precondition that our foreign indebtedness must not or cannot be increased is to be met, then the given problem poses a certain absolute dilemma.

In terms of its difficulty, this task may justifiably be compared with the tasks with which engineering was confronted in the 1950's, when the general policy of the 9th CPCZ Congress applied to it.

The following trends must now assert themselves in engineering:

--The supply of raw materials, especially of metals and fuels, will not be more than in 1980, but will have to suffice;

--Engineering's output in 1985 will have to be 28 percent higher than in 1980, in accordance with the Law on the 7th Five-Year Plan;

--Considerable emphasis must be placed on Czechoslovak engineering's active role in external relations with both parts of the world.

We are not belittling in any way the intensifying crisis situation in the nonsocialist markets, which is being made worse for us by the capitalist banks' course of action in the area of lending. But as the decisive source of Czechoslovak engineering's difficulties we regard the causes that lie within the planning and management of our engineering.

Unquestionably, many products of Czechoslovak engineering are below the top world level; the products cannot be sold at the prices that the top products fetch, or they cannot be sold at all in the world's developed markets.

Czechoslovak machines are lagging in the most progressive part of engineering: in their automation, control and electronic equipment. Their consumption of fuel, power, etc. is higher, although their mechanical part still can pass world comparison. The customer, of course, is buying a machine as a whole, and in many instances we are unable to offer him the overall world level.

One of the most serious causes of this situation is the broad and essentially universal product mix of Czechoslovak engineering, not supported by a sufficiently strong scientific-research base. We will disregard for the time being the other causes such as the raw-material situation, availability of personnel and the technological base of production, each of which certainly contributes its share to the present situation.

Today, in the context of economic cooperation with the Soviet Union, we wish to write about this first cause which, in our opinion, is the basic one. Czechoslovak engineering's universality and broad product mix have their reasons. Reconstruction after 1945, in our country as well as in the other socialist countries, was essentially universal and affected all branches. It required of engineering universal capital goods. At that time there were only two socialist countries able to supply the markets for capital goods in the other socialist countries: the Soviet Union and Czechoslovakia. But Soviet engineering was engaged primarily in the reconstruction of its own economy. Therefore, a significant proportion of the demand in terms of assortment concentrated on Czechoslovak engineering. At that time, however, Czechoslovak engineering certainly was not universal. In order to supply the demand, it had to broaden its product mix and catch up, especially since then export embargoes were already in effect for certain types of machinery.

This great achievement--the broadening of the product mix--necessarily had its unfavorable consequences in that the product mix was not always of the highest level, and an ever-wider gap developed between it and the scientific and technological "storehouse." In addition, Czechoslovak engineering missed the bus in developing such complexes, perhaps rather than sectors, as electronics, computer technology, cybernetics and robotics.

As a result, Czechoslovak engineering lost the positions it had maintained in the 1950's, in both the nonsocialist and socialist markets.

Enough proof and analyses have already been presented. But it is becoming increasingly evident that this loss of position must be halted and turned around. Czechoslovak engineering's product mix must be narrowed to bring it in line with the research and development base, to take advantage of Czechoslovak engineering's specialized production structure, to reduce cost, to make the products lighter, etc.

This is not and will not be simple. First of all, competition is intensifying in the markets of the developed capitalist countries, and noneconomic barriers are beginning to be raised to imports of Czechoslovak machinery. In these markets and the markets of the third world we can expect growing competition from developing countries, often on the basis of licensing.

There is of course the socialist world market, primarily the CEMA market. At first glance, Czechoslovak engineering can easily plunge into this market with its exportable inventions and carve itself a specialized niche there. But even this will not be so simple.

First of all, this market has ceased to be a "soft" market, and it will increasingly demand the same world level as is customary elsewhere. Secondly, a relative decline of the demand for Czechoslovak machinery can be expected also in the socialist countries during the next 5 to 10 years, in conjunction with the curtailment of capital construction, and these countries might adopt a shortsighted but understandable anti-import policy. Incidentally, this is nothing other than what we will be doing under the 7th Five-Year Plan.

Thirdly, the present well-known practice of "cross-stitching" might continue in the negotiations and agreements on specialization with the CEMA Permament Commission for Cooperation in Engineering. Under this practice, individual countries undertook to specialize in certain products, but it was never carefully weighed whether they had the prerequisites to do so, and whether the specialized production would actually develop optimally and at the world level in terms of the size of the series, technology, etc.

All the countries have admitted that this practice is wrong. What is now needed is that they match their words with deeds.

Although we do not wish to belittle in any way the importance of the CEMA and socialist countries' domestic markets to Czechoslovak engineering, it is quite obvious that our decisive market is the Soviet Union.

Czechoslovak engineering has been cooperating with the Soviet Union for many years. By now this cooperation has become traditional in many sectors, and it is constantly intensifying and expanding. For several decades we have been supplying the Soviet Union rolling mills, chemical equipment, machinery and equipment for the food industry, railroad rolling stock, diesel engines, rubber-industry machinery, equipment for the processing of ceramics and the production of cement, subassemblies, equipment for light industry, trucks, transmitters, telephone exchanges, construction and road machinery, and other machinery and equipment. Mention should be made also of Czechoslovak engineering's participation in the realization of intergovernmental agreements with the Soviet Union on cooperation in developing mining and ore-dressing capacities for ferrous and nonferrous ores, in the development of petroleum production and in the construction of power plants. Lately the structure of machinery and equipment supplied to the Soviet Union has been further expanded to include particularly equipment for nuclear power plants, ventilation and air-conditioning equipment, and feed-mixing plants.

Czechoslovak engineering's high share of export to the Soviet Union is evident from the following table:

Proportion of Machinery Export to the Soviet Union, in Percent of Total Export

FMHTS [Federal Ministry of Metallurgy and Heavy Engineering]	48.2
FMVS [Federal Ministry of General Engineering]	33.7
FMEP [Federal Ministry of Electrotechnical Industry]	44.5

As an example we present the high proportion of Soviet orders within the total output of heavy engineering. Under the 7th Five-Year Plan we are exporting to the Soviet Union: 67 percent of the output of trolleybuses;
59 percent of the output of streetcars and diesel locomotives;
55 percent of the output of electric locomotives; and
47 percent of the output of chemical equipment.

The following sectors likewise have a high share of export to the Soviet Union: turbocompressors, rubber-industry machinery, and diesel engines.

In evaluating the attained level of Czechoslovak heavy engineering's participation in cooperation with the Soviet Union it should be emphasized that a large part of the Czechoslovak export to the Soviet Union consists of subassemblies and thus involves production cooperation between Czechoslovakia and the Soviet Union. In this category we may include:

--Cranckshafts produced by Skoda of Plzen, for the production of diesel engines in the Soviet Union;

--Marine diesel engines produced by Ceskomoravska Kolben Danek of Prague for installation for ocean and inland craft built in the Soviet Union;

--Steam reforming units, pyrolysis sections, compressors, autoclaves, coolers and other chemical equipment are installed by the Soviet Union in complete plants for ammonia, ethylene, methanol, manufactured fertilizer and other chemicals;

--Spherical valves that are installed in the long-distance gas pipelines;

--Other types of industrial fittings, turbocompressors, industrial refrigeration equipment are likewise intended for installation in power plants, chemical and food-industry plants, underground mines, and refrigeration and freezing plants;

--Parts and subassemblies for cement works;

--A series of other equipment from the following sectors: ventilation and air-conditioning products, steam turbines, power transistors and thyristors, and individual items of equipment for rolling mills.

Deliveries of subassemblies from the Soviet Union likewise are increasing gradually to our heavy engineering, especially for installation in diesel locomotives and for the production of motor vehicles; also power transistors and thyristors, antifriction bearings for rolling mills, etc. The situation is similar in the other sectors of engineering.

These figures are relatively high, but in terms of volume they certainly do not represent the limits of possibility. Then why are we talking about the need to change over to a higher level of economic cooperation in general, and with the Soviet Union in particular?

Because in our mutual relations a period is approaching in which the possibilities of cooperation will gradually become exhausted that are based on the following:

--On the division of labor in final products;

--On the initiative and effectiveness of the central organs;

--On collaboration and cooperation between the independent and separate national executive and production organs.

In addition to these forms--as Comrade Brezhnev pointed out at the 26th CPSU Congress--it will now be necessary to coordinate entire national economies, their structures and long-term outlooks, to establish direct contacts between producers, and to broaden production specialization and cooperation in subassemblies, parts and components. All this applies eminently to engineering in particular.

Starting out from these overall objectives, the Czechoslovak side is proposing the intensification of production specialization and cooperation in a number of specific areas, sectors and products, but it intends to realize these proposals through higher forms of cooperation, for example, through direct contacts between enterprises and through the establishment of joint enterprises for research and development, production, and marketing in third markets. At the same time the Czechoslovak side regards the coordination of economic policy in engineering as the solution of important economic problems that decisively affect the determination of the directions of social and economic development and of mutual economic cooperation in the fraternal countries in the long term, and as the joint determination of the methods of direct cooperation in the areas of science, technology, production and investment. Furthermore, the Czechoslovak side regards engineering and electronics as one of the priority directions and tasks in material production that will ensure the high technical level of production and the ability to compete on world markets.

The Czechoslovak side is proposing the intensification and discussion of topics that in principle are not new, because they stem from the long-term target programs of cooperation, the bilateral programs of production specialization and cooperation, and from other contracts and agreements. A new feature of the submitted proposals is that cooperation must take place through higher and more effective forms, including the establishment of joint design and development bureaus, research and development work stations, enterprises and joint international corporations. The Czechoslovak side is also proposing the development of systems conditions for their functioning, because it believes that such conditions are essential, and without them the anticipated benefits from the realization of cooperation proposals could hardly be achieved.

The Czechoslovak side is presenting the following specific proposals:

1. In the area of solving the fuel and power problem, the preferential development of nuclear engineering is necessary to ensure the program for the construction of nuclear power plants through the year 2000. Furthermore, efforts must be concentrated on developing the production machinery and equipment to increase the strip-mining of coal; on the production of machinery that is less energy intensive; on introducing the production of equipment for processing secondary raw materials and sources of energy; and on developing the production of equipment to utilize nonconventional sources of energy.

2. For the solution of the agriculture and food-industry problem, cooperation must be intensified in the production of the line of tractors, integrated implements, combines, sets of machinery for the cultivation, harvesting and post-harvesting processing of fruits and vegetables and other crops, systems of machinery and equipment for livestock production and feeding, and systems of machinery for the food industry; also in expanding the deliveries of machinery and equipment for the building of new and the modernization of existing food-industry plants, feed-mixing plants, and refrigeration and storage facilities of the Soviet food industry.

3. For equipping engineering itself, the production must be developed of technological equipment, automatic production lines, machine tools and forming machines with numerical control, various production systems, equipment for automatic measuring and control, and telecommunications equipment. Cooperation must be expanded in developing new production technologies for LSI and VLSI electronic circuits, electron optics, light and laser technology; and in developing a unified electronic components base, through unification and standardization, including the supply of special technological equipment and high-purity materials for microelectronics.

4. In the area of consumer goods, modern technologies and equipment must be developed and introduced for the production of consumer goods, and Czechoslovak engineering is to participate in supplying equipment for the modernization of light-industry enterprises in the Soviet Union.

We are aware that not all Czechoslovak proposals can be immediately accepted in their entireness. It will be necessary to take into account the views and also the preparedness of the other side. We must understand that the ingrained habits of an engineering power such as the Soviet Union are involved, and that a certain period of transition will be necessary before actual practical contacts are established and joint institutions are formed.

But at the same time we also must bear in mind that the presentation and realization of the proposals regarding higher forms of cooperation carry a certain risk as well that stem not so much from the subjective will of the two participating sides, but are rather objective in their nature.

In addition to the Czechoslovak internal causes associated with the slow rise of the effectiveness of management in engineering, also factors related to the mechanism of the entire international division of labor and its organization are contributing to slowing down the participation of Czechoslovak engineering in the higher forms of the international division of labor, among which production specialization and cooperation indisputably belong.

Therefore we should bear in mind that for the further intensification and development of the process of socialist economic integration it is simultaneously necessary to propose and demand basic changes in its mechanism. This mechanism must be modified so as to permit the active participation of all levels in the management of the reproduction process and of the economic organizations in particular, with the understanding that they will really make use of their defined authority and will also assume full financial responsibility for their obligations. Such a situation can result only from the extensive plan-conforming application of commodity and money relations, combined with the development of equivalent exchange between economic organizations in accordance with the uniform functioning of the law of value, within the national economy and in international trade in particular. This specifically requires the following:

--The question of exchange rates must be solved urgently, as the basis for the introduction of a real transferable ruble;

--Domestic wholesale prices must be linked to international value (at least bilaterally);

--Economic incentives must be provided that will ensure production innovation through international (including bilateral) cooperation;

--Emphasis in the processes of integration must be shifted to direct relations between the two countries' economic organizations;

--The central and managing organs of both countries must concentrate on conceptual activity that will ensure the development of integration within the scope of their authority.

Only if these prerequisites are comprehensively met will it be possible to realize effectively and quickly the outlined substantive proposals for intensifying the process of socialist economic integration in the branches of engineering and electrical engineering, multilaterally as well as with the Soviet Union.

1014
CSO: 2400/103

METALLURGY, HEAVY ENGINEERING RESULTS SUMMARIZED

Prague HOSPODARSKE NOVINY in Czech 17 Dec 82 p 2

[Article by Jan Mara, CPCZ Central Committee employee]

[Text] The metallurgy and heavy engineering sector is continuing to maintain, toward the close of the year, a positive level of assurance of state plan objectives. The performance achieved during the first three quarters of 1982 has created a positive climate for the fulfillment of annual tasks.

The target for deliveries for capital investment, expressed in wholesale prices, has been exceeded by Kcs 1.4 billion (i.e., 83.3 percent of the annual target has been met). The target for domestic market deliveries was also 83.3 percent fulfilled, exceeding the goal for the end of the third quarter by Kcs 225 million. Targets for export deliveries to socialist countries were 75.9 percent fulfilled in terms of wholesale prices and 75.2 percent fulfilled in terms of all charge paid prices, while targets for export deliveries to nonsocialist countries were 78.4 percent and 75 percent fulfilled in terms of wholesale and all charges paid prices respectively.

Plan targets were exceeded both in the production of goods and in gross production, even in view of a lesser number of employees than provided for by the plan. This sector achieved positive results in labor productivity, where it exceeded its target by 1 percent, in adjusted value added (a 75.9 percent share), and in profitability (82.7 percent).

Inventories were also reduced. The greatest problems, however, remain those connected with the implementation of internal capital investment plans.

A moderate decline occurred in October in the fulfillment of state plan objectives. It was not enough, however, to significantly influence recent positive trends.

The failure to fulfill adjusted value added targets in October resulted in a reduction in the level of plan overfulfillment since the beginning of the year. Problems in the achievement of the projected volume in this category were experienced by the Ferrous Metallurgy VHJ (which fulfilled 87.8 percent of its October target), the Prague factory of Ceskomoravska Kolben-Danek (91.2 percent), the Czechoslovak Air Technology Factories (94.6 percent), Plzen Skoda (95.7

percent), Kovohut (98.8 percent) and Chepos (99.8 percent). In spite of this, by the end of October all VHJ had fulfilled their targets for adjusted value added.

Uneven development was also evident in employment, where planned levels were attained only by the following VHJ: the Mines for Nonferrous Metal Ores and Magnesite Factories in Bratislava, Kovohut, Plzen Skoda and Klement Gottwald Iron and Machinery Works in Vitkovice.

Sectorial targets for the production of goods were exceeded in October by almost Kcs 100 million. All VHS met their objectives. The following firms inadequately fulfilled their targets for this stage of the year, primarily due to a failure to obtain subassemblies necessary for the completion of products: Brezno Mostaren, the Nymburk Sectorial Mechanization Plants, the Choteborsko Machine Works, the First Brno Machine Works, the Spisska Nova Ves Mines for Ferrous Ores, and the Zdanice Screw Works.

Since the beginning of the year, this sector has exceeded its target for the production of goods by Kcs 1.3 billion. The foundary and ore mine branch is fulfilling its objectives at a 101.1 percent pace, the engineering branch at 100 percent. Shortfalls amounting at the end of October to Kcs 55 million at the Plzen Skoda Works and Kcs 31 million at the Brno Chepos have not as yet been made up. The goods production plan for the first 10 months was not fulfilled by 10 enterprises, with a total shortfall amounting to Kcs 153 million.

The sector overfulfilled the October plan for gross production by Kcs 58.7 million. Planned levels were not achieved by the Bratislava Mines for Nonferrous Metal Ores and Magnesite Factories (99.4 percent) and by Chepos (99 percent). Since the beginning of the year, the sector has exceeded planned volume by Kcs 703 million. Shortfalls for the first 10 months have not yet been made up at the Plzen Skoda VHJ, the Czechoslovak Railroad Car Works and at the Czechoslovak Air Technology Factories.

The number of firms failing to fulfill the plan continues to be quite high; as of the end of October, 20 had as yet failed to fulfill their objectives. These shortcomings are the most evident at the following VHJ: The Tlmac Slovak Energy Machinery Works, Plzen Skoda, the Blansko factory of Ceskomoravska Kolben-Danek, and the First Brno Machine Works.

November projections in the area of goods production indicate that the time plan will be exceeded by Kcs 72.6 million (a 100.6 percent fulfillment rate). A smaller shortfall is expected at the Czechoslovak Air Technology Factories VHJ. This will not, however, affect its plan fulfillment from the start of the year.

The projection for goods production from the beginning of the year until October was just as favorable. The fulfillment of most of the plan was expected, primarily due to the efforts of the metallurgy and metal ore mine sector, where all the VHJ are fulfilling their planned targets.

To foster the assurance of 1982 targets, concrete objectives and measures applicable to individual VHJ, as well as measures adopted at the VHJ level and applicable to individual enterprises were adopted at a conference of general directors from the Federal Ministry of Metallurgy and Heavy Engineering in November of this year.

During September and October, coordinating conferences took place at all VHJ among the chairmen of the all-factory committees of party organizations from the enterprises and factories. At these meetings, which were attended by representatives of the CPCZ Central Committee, the Federal Ministry of Metallurgy and Heavy Engineering, and the management of the VHJ, an evaluation was performed of the situation regarding the fulfillment of 1982 state plan targets in the individual enterprises and VHJ. On the basis of this detailed analysis, a joint approach was established at the close of 1982 for party organizations and economic organs. The basic goals for 1983 plan preparation were also outlined. The coordinating conferences demonstrated the readiness of communists and of all sectorial employees to come to terms with the state plan objectives of this year.

The results which have been achieved in metallurgy and heavy engineering are laying the groundwork for the successful fulfillment of 1982 tasks. On this basis, and on the basis of projected performance for November and December, the following projection has been made for this year's performance.

Targets for deliveries for capital investment will be fulfilled at a 108.3 percent level, exceeding the target by Kcs 1 billion, and at a 105.1 percent level for the domestic market, expressed in retail prices. Delivery objectives for exports to socialist countries will be fulfilled at a 100.2 percent level in all charges paid prices. The target for production of goods is expected to be exceeded by more than Kcs 1 billion. Labor productivity derived from adjusted values added should be fulfilled at a 100.8 percent rate, internal capital investment targets by 102 percent, adjusted value added targets by 100.7 percent, and profit projections by 101.7 percent. On the whole, the sector is expected to exceed inventory targets by Kcs 842 million, with most of this accounted for by the Ferrous Metallurgy VHJ with excess inventories of Kcs 773 million.

At the end of the year, most of the attention will be focused on maintaining the pace that led to the exceeding of targets for the first three quarters of the year, and to assure the objectives of the fourth quarter. At the same time it is essential to come to terms with the larger production shortfalls, especially at the Plzen Skoda and Chepos VHJ, by the organization of assistance for the enterprises of the Tlmac Slovak Energy Machinery Works, Plzen Skoda, the Blansko factory of Ceskomoravska Kolben-Danek, the Uhersky Brod Slovak Machine Works, the Hradec Kralove Victorious February Factories, and the Decin Ferox plant. In the area of deliveries for capital investment, emphasis will be placed on meeting the product mix for priority state plan objectives. In the area of exports to socialist countries, emphasis will be placed on material assurance, especially for goods from the Klement Gottwald Iron and Machine Works at Vitkovice. Exceptional attention will be given to adhering to limits on inventories.

9276
CSO: 2400/112

AGRICULTURAL PLAN AIMS FOR 1983 OUTLINED

Bratislava ROLNICKE NOVINY in Slovak 24 Dec 82 p 1, 2

[Article by Julius Varga, chief of a division of the CPCZ Central Committee "On the Way to A Strengthened Economy"]

[Text] The Seventh Plenum of the CPCZ Central Committee discussed the results of the development of the national economy, achieved in the first 2 years of the Seventh 5-Year Plan and determined chief tasks and objectives for the State Economic and Social Development Plan for 1983. It has been emphasized that despite complex conditions which required coping with persistent attempts of imperialist countries to damage our economic development through various forms of sharpened discrimination the 16th CPCZ Congress program for economic development and maintaining a stable standard of living and social stability for the people has been implemented. The results achieved so far are positive. Despite our exports being affected strongly by the deepening recession in the capitalist countries, we have taken the path of stabilized external economic relations and we are deepening cooperation with the Soviet Union and other socialist countries.

Maintaining dynamic industrial production according to the plan and at the same time conserving fuels, energy metals and raw materials is a positive achievement. The intolerable excess of construction projects in progress is being restricted and changes in manufacturing structure are being introduced in accordance with the plan. Despite certain difficulties, our economy is essentially accommodating successfully the consequences of restricted imports of high-grade fuels and some raw and processed materials.

However, the CPCZ Central Committee adopted a critical attitude toward inadequacies which weaken the results of our joint efforts and slow down the progress toward intensification of the national economy.

There are many enterprises, which fulfill their tasks insufficiently. The production structure is not always purposeful and there are frequent delays in putting important equipment and facilities into operation. The level of technological standards and quality of production are not being adequately increased. These and other negative factors disturb the balance between some fundamental relations in our economy and eventually slow down the entire process of intensification.

In the area of agriculture and food industry, we continue our efforts to increase our self-sufficiency in food, a program adopted by the 16th CPCZ Congress and further developed for the conditions of the 1980's by the Fourth Plenum of the CPCZ Central Committee in October 1982. Last year confirmed the necessity to focus on consistent exploitation of our own potentials and resources by means of intensification and effectiveness of production. The results we have achieved confirm that party organs and organizations, management agencies and people working in agriculture and food industry understood correctly the resolutions of the Fourth Plenum of the CPCZ Central Committee, which called for mobilization in internal resources and progressively decreasing dependence on imported food. Consequently, gross agricultural production has grown. Compared with last year, it has increased 1 percent, particularly attributable to the development in plant production, which increased 9 percent, and thus will be roughly 2.5 higher than in 1978 and 1980, our most successful years. Thus, after several years, we achieved the desirable advance of plant production, also consequently a decrease in meat production. However, we cannot be contented with the results so far achieved. Despite great efforts and the support which agriculture received last year, the overall planned objectives will remain unfulfilled. Complicated weather conditions had unfavorable effects but problems of a subjective character also influenced the results. In this respect, the most sensitive area is grain production; there is a drop of about 750,000 tons. Another drop is in the production of oil-plants, legumes and partly potatoes, but also bulk fodders. Despite notorious problems with fodders, we expect livestock production objectives to be fulfilled, with the exception of milk purchase, which deteriorated due to undesirable stagnation in the profitability of farm animals. It appears that even the planned economic results will remain unfulfilled.

The 1983 objectives for the agriculture and food industry have been based on the strategic policy of increasing our self-sufficiency in food and on realistic potentials. We must endeavor to focus on restoring production dynamism more consistently and utilize material resources efficiently to the maximum extent in order to successfully transform all our production into high values.

The priority of developing plant production over animal production will remain a basic task. To achieve the assessed increase of gross agricultural production by 2.7 percent, in comparison with this year's production, plant production is expected to expand 5.6 percent, which is more than twice as much as before. This increase constitutes a necessary prerequisite for a further well-balanced development of our entire agriculture, a decrease in imports of fodder, oil bearing plants and the possibility of increasing exports of our traditional products. Since the dynamism of the growth of agricultural production has been planned slower than last year, it may seem that these tasks will not be difficult. However, the tasks appear more demanding when compared with the production growth in the Sixth 5-Year Plan, when we attained a yearly average growth of 1.9 percent in gross agricultural production and 1.5 percent in plant production.

The key objective is to ensure 11 million tons of grain. The fulfillment of this task is a fundamental prerequisite for increased self-sufficiency in grain as well as for successfully fulfilled tasks in the area of animal production. First preconditions have been created by expansion of the area of arable soil and timely sown winter wheat and rye. In the same manner, we must secure sufficient arable acreage for spring wheat and rye and we must not plan unrealistic yields.

Considerably higher tasks are also awaiting us in other areas of plant production, especially in production of oil bearing plants and legumes, which are significant not only from the point of view of anti-import measures but also for the nourishment of the population. Even though this year's results in fodder crops are better, we cannot underestimate the assessed production increase of 5 percent. The fulfillment of these tasks will enable us to create a certain surplus for following periods. It is not only a question of higher quantities but also higher quality and a change in the structure that will enable us to replace grain fodder by hay to a larger extent.

The plan objectives in the area of animal production are subordinate to the main goal of developing domestic resources as the base for this production. Therefore, we expect an increase in meat production which would maintain consumption at this year's level, i.e. 80.3 kg; other food of animal origin will increase only slightly. Even though the needs of animal production are relatively well secured by both grain and crop fodders, fodder conservation remains a priority task. However, we must not economize with fodder at any price. Ways of real consumption rationalization must be sought in better use of grain fodders and their replacement by other resources. At the same time, we must restore the dynamism of profitability in all sorts and types of farm animals, prevent unnecessary losses and implement changes in the production structure more readily.

The food industry tasks are based on the potential of the raw-material base and their fulfillment depends to a decisive extent on the outcome of agricultural production. The 2.4 percent increase of the total production volume and 2.9 percent increase in the volume of consumer foods inventory supplies require sufficient quantities of quality raw materials, consistent attention paid to their complete use, an increasing amount of better products, and a progressively broader range of food products. Food industry enterprises must develop greater initiative in these directions.

The demands and complexity of the 1983 objectives are more obvious when we consider that the objectives will have to be fulfilled despite restricted inputs, both in agriculture and the food industry, as is the case in other sectors of the national economy. Reduced supplies of tractors, trucks and other of mechanization will not enable us to improve significantly either the structure or ready replacement of machinery. Industrial fertilizers, chemical preparations, fuels, especially crude oil, and other types of fuel and energy must be used with utmost care and efficiency. All these conditions and facts confirm that ways of mobilizing and utilizing all available resources and hidden potentials is decisive for coping with these tasks successfully. Therefore, it is necessary to significantly improve management and organization, especially in agricultural management agencies, but also directly in agricultural enterprises. Further, large possibly unused resources are reflected by the different results of individual districts and enterprises which are low, below average or lag behind, where we find the biggest opportunities to increase both intensity and effectiveness of production.

High demands and responsibility must be enforced while implementing the planned management system in agriculture, since we still witness unsystematic work, least problematic production areas are preferred while more difficult tasks remain unsolved. We must heighten demands on both suppliers and purchasers as well as on technical and biological service organizations, urge them to keep contract obligations and duties, so that everybody feels highly responsible for supplying the population with food. Agricultural enterprises must be more flexible in taking advantage of the possibilities which the system provides by offering more effective forms of economic incentive and reward according to work results of both collectives and individual workers. In this direction, we see a wide area for personal initiative in enforcing tasks and supervising their fulfillment not only at particular levels of management but also in agricultural enterprises themselves.

9814
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REALIZATION OF ENERGY MANAGEMENT PROGRAM DISCUSSED

Budapest MAGYAR NEMZET in Hungarian 22 Dec 82 p 9

[Article by Andras Faludi: "Weighing Energy--2 Million Tons Less Petroleum"]

[Text] To be ecstatic would be an exaggeration. But we can accept it with controlled, happy optimism that the balance of the government's energy management program begun 2 years ago is better today than was expected at the start. Generally we can rightly blame our own difficulty, the slowness of conforming--the fact that the national ideas become distorted during the course of implementation, and in some cases become practically their own contradictions--for the fact that today it is almost "unfashionable" to report on a success.

Even before December 1980, much was said about having too little energy reserves, about too much being imported, and that we had to economize. But at that time an overall program was adopted which first "reviewed" the entire situation. It systematized what needed to be done and designated the directions and goals.

We are all affected by the results in two aspects. As citizens of the country, we are interested in solving the problems of society as a whole. And as consumers, our need is to have as much energy at home as we want to use. Because if we did not manage it well, perhaps restrictions for the population would have to be introduced today. (There are examples of this in other countries.)

Twelve More Settlements

Last year at the end of the year the first evaluations still had to be received very carefully. In implementing a comprehensive process of measures, 1 year is not enough to make far-reaching conclusions. We could acknowledge first results at that time in which production increased 2 percent and energy consumption decreased 0.7 percent. This after many previous years when increases in productivity and the national income were always followed by increased energy consumption.

Production will post a modest increase again this year, 1 percent is expected; but the country's total energy consumption will be only the same as it was last year. And this already indicates that economical consumption is a process and we have repeated the previous year's results in the second year.

The exact name of the program is energy rationalization. It is not a pretty expression but defines the substance. We must treat more rationally that which we have. Four years ago the share of petroleum, the most expensive fuel, was 41 percent of the country's total energy consumption. Now it is about 33 percent. These two factors--maintaining the quantity of consumption at a level, and decreasing petroleum within the whole--means that we are importing and consuming 2 million fewer tons of petroleum today, than in 1978!

Last year the watchword was: let's eliminate waste. Let's put the pipeline in shape, and maintain better the machinery and equipment using it. Today, more small investments and newly introduced technologies, and changeovers to cheaper energy sources also help the population.

Production from domestic sources is increasing in excess of the preliminary expectations. The plan was for the miners to bring 25.5 million tons of coal to the surface. This is expected to turn out to be 26 million. It is a different question that coal consumption has also increased due to the very switch in energy sources, causing temporary problems in supply. We planned 1.2-1.3 million tons of briquettes. The output will be 1.5 million tons. Natural gas production was estimated at 6 billion cubic meters; the wells will exceed this by half a billion. The original plan was that next year only Pecs would receive [new] natural gas service. With this surplus we can provide changeovers for 12 settlements, and the network can also be expanded at those locations where there already is natural gas in the residential districts.

Rich Storehouse of Examples...

While less is being imported from abroad and the quantity of energy sources brought up to the surface is increasing, consumption is decreasing in the production branches. Industry this year is expected to increase its production 1 percent and to decrease its energy demand by the same amount. This is because--among other things--a portion of the investments for saving furnace coke has been completed. In technologies which use steam, the new condensation vessels are reusing warm water recovered from the steam with good efficiency. Thermal insulation of the networks in plants is improving over-all with continuous maintenance and small additions. (Just one example from the chemical industry. At the United Chemical Works, a new turbine has been installed which produces the same amount of electrical energy as the old one but consumes only half the energy.) Even with the knowledge that the largest consumers, the smelters and chemical facilities, operated at reduced rates due to sales problems, industry's balance is still an impressive one.

Transportation also achieved 1 percent savings. Partly through organization, specific consumptions--consumption with respect to persons and freight transported--decreased at VOLAN [Motor Transport Enterprise] and at TEFU [Trucking Center]. The drivers were also forced to economize by administrative changes, such as doing away with tickets and buying fuel for cash. The first technological measures have been implemented here, too. This year low-consumption IFA diesel engines have been installed in at least 1,000 "gasoline-hungry" ZIL trucks.

We often compliment agriculture. Rightly so. This year they harvested good crops in several branches. But they used 2 percent less energy than last year. Over 40 plants are generating heat by burning agricultural waste. Petroleum savings are at 20,000 tons. Geothermal energy, hot water wells, replaces another 100,000 tons in about 100 operations; it is used not only in plastic covered hot houses and public baths, but also heats 3,000 homes today. Moist corn storage has also been implemented at 100 locations, decreasing the heat requirement for drying. Let us also add to this that the weather was favorable this year from this viewpoint. If there is much precipitation at harvest time, not only are the machines and combines struggling in the mud using more fuel but what is even more important, drying the harvested crops also uses up a tremendous amount of energy. This autumn was dry. We had good plans and consistent execution.

The Savings Belong to the People

The savings realized in production and transportation made it possible for the private and public energy consumption to increase 3.5 percent--while total consumption remained the same. Electric power consumption in households shows a 10 percent increase over last year. This is a natural process, our homes are more and more comfortable, the stores are selling electric water heaters, household appliances, automatic washing machines, and 30,000 heat-storing room heaters have been sold. Only 30,000 were made because the network cannot support any more of them, and the power plants--even though at night--still use mostly petroleum to produce the current needed to operate them.

We are saying that it would be nice if the population were also better in saving energy. But it is not always up to them! Household appliances--and there are more and more of them--use much energy. There are also some frugal models made. The transistorized design of television sets decreased one set's energy requirements from 170 watts to 70; but one automatic washer consumes 2,500 to 3,000 watts during the heating cycle. The old, heavy electric irons used barely 300 watts. Consumption of the new, light models is as high as 1,000. But these are the ones in demand: they are comfortable, and take some of the workload off the shoulders of housewives--and in more and more families, of husbands.

Thus we must expect the consumption of households to increase. This must be considered a "sacrifice" that is indispensable to the improvement of the quality of our lives. But it does depend on the tenant, the renter, how good the insulation around the door and the window is. Whether he uses his hard-earned money for the country's energy to heat the streets, or to heat his apartment. Therefore, the remote heating plants all over the country have begun to examine and improve the thermal insulation of the apartments they handle.

In conclusion, one more fact is needed for the overall picture--for the program's implementation which has begun in all areas. When the Sixth 5-Year Plan was worked out, it was announced that a 1 percent increase in the national income must be achieved with the consumption of a maximum of 0.7 percent more energy. The national income is increasing, even if with difficulty and more slowly than desirable. But overall energy consumption did not increase at all, and even decreased in the production branches. This clearly qualifies the program's results so far.

8584
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SPECIAL CURRENCY EXCHANGE RATE TABLE PUBLISHED

Warsaw TRYBUNA LUDU in Polish 27 Jan 83 p 7

[Text] Announcement of Exchange Rates Table No 4/83, effective 24 January 1983, by Stanislaw Majewski, president, Polish National Bank, on 24 January 1983.

I. Foreign-currency exchange rates in zlotys for countries of the first payments area [socialist countries] for commercial and noncommercial payments remain unchanged.

In purchases of travelers' checks for rubles, issued by the USSR Foreign Trade Bank and payable outside the USSR in the currency of the country where cashed, an exchange rate of 12,075.72 zlotys per 100 rubles is applied.

II. Foreign-Currency Exchange Rates in Zlotys for Countries of the Second Payments Area [Capitalist Countries].

[Table on following page]

Exchange Rates Table No 4/83

			Foreign exchange		Money		
Country	Curr symb	Currency	Purchase 4	Sales 5	Purchase 1	Sales 2	Average 6
Saudi Arabia	771	1 rial***	24.69	24.93	--	--	24.81
Australia	781	1 Aust. dollar	83.70	84.54	82.44	85.80	84.12
Austria	786	100 schillings	506.93	512.03	499.29	519.67	509.48
Belgium	791	100 francs	181.83	183.65	179.09	186.39	182.74
Denmark	792	1 kroner	10.12	10.22	9.97	10.37	10.17
Finland	780	1 markka	16.07	16.23	15.83	16.47	16.15
France	793	1 franc	12.58	12.70	12.39	12.89	12.64
Greece	724	100 drachmas	101.32	102.34	87.82	103.87	101.83
Spain	785	100 pesetas	67.08	67.76	66.07	68.77	67.42
Holland	794	1 florin	32.36	32.68	31.87	33.17	32.52
India	543	100 rupees***	867.32	876.04	--	--	871.68
Ireland	782	1 pound***	118.11	119.29	--	--	118.70
Japan	784	100 yen	36.67	37.03	36.11	37.59	36.85
Yugoslavia	718	100 dinars	117.39	118.57	101.75	120.34	117.98
Canada	788	1 Canad. dollar	69.27	69.97	68.23	71.01	69.62
Kuwait	770	1 dinar***	294.16	297.12	--	--	295.64
Lebanon	752	1 pound	22.41	22.63	22.07	22.97	22.52
Libya	651	1 dinar***	286.76	289.64	--	--	288.20
Luxembourg	790	100 francs	181.83	183.65	179.09	186.39	182.74
Norway	796	1 kroner	12.12	12.24	11.94	12.42	12.18
Portugal	779	100 escudos	88.48	89.36	76.68	90.70	88.92
FRG	795	1 mark	35.61	35.97	35.07	36.51	35.79
United States	787	1 dollar*	84.91	85.77	83.63	87.05	85.34
Switzerland	797	1 franc	43.48	43.92	42.83	44.57	43.70
Sweden	798	1 kroner	11.64	11.76	11.47	11.93	11.70
Turkey	627	100 pounds	45.21	45.67	39.19	46.35	45.44
Great Britain	789	1 pound**	134.58	135.94	132.55	137.97	135.26
Italy	799	100 lira	6.21	6.27	5.39	6.36	6.24
Iran	646	100 rial	101.04	102.06	99.52	103.58	101.55

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*Valid also in clearing accounts with the following countries: Bangladesh, Brazil, Ecuador, Greece, Iceland, Kampuchea, Colombia, Lebanon, Pakistan, Peru and Iran.

**Valid also in clearing accounts with the following countries: Nepal and Pakistan.

***The Polish National Bank does not purchase money in these currencies.

CSO: 2600/301

FOREIGN TRADE OFFICIALS, SPECIALISTS DISCUSS REFORM

Warsaw RYNKI ZAGRANICZNE in Polish No 100-101, 19, 21 Oct 82 p 8

[Article by Maciej Tekielski: "Critical Assessment of Reform Implementation Expressed by Foreign Trade Officials and Specialists;" passages enclosed in slantlines printed in boldface]

> [Text] /This was the title [title of article] under which the IKC [Institute of Trends and Prices] and the PIHZ [Polish Chamber of Foreign Trade] together with the MHZ [Ministry of Foreign Trade] organized a conference whose aim was to sum up the experiences to date and to discuss essential changes in the system of managing foreign trade in the coming year. Representatives of the central administration took part in the conference: Stanislaw Dlugosz, assistant chairman of the planning commission; Prof Zdzislaw Sadowski, government representative of the plenipotentiary for economic reform as well as the deputy minister of foreign trade, Ryszard Strzelecki. Also present were representatives of foreign trade enterprises as well as many export firms from around the country./

In opening the deliberations, the chairman of PIHZ, /Ryszard Karski/, stated that enterprises as a whole favor reform and its implementation, however, it is already apparent today that /certain mechanisms of the reform within the sphere of foreign trade ought to be improved/. Relatively speaking, the greatest interest is being evoked by foreign-exchange allowances and the rate of foreign-exchange and particularly by their range in relation to import and export. Among matters which are also often raised are issues concerning taxes and in a broader sense export incentives as well as many questions arising at the point of contact between industry and foreign trade.

While inviting participation in the discussion, chairman R. Karski announced that all opinions, proposals and postulates will be turned over to the authorities and also to the Commission for Economic Reform.

In commenting upon the work of the Eighth Team for Reform, the team's project director, Stanislaw Dlugosz, stated that /experience has proven the validity of the solutions proposed by the team/. Whenever decisions strayed from the recommendations of the Eighth Team, it was necessary to correct them later on.

In 1983, the external environment will not be more conducive to our export endeavors than during the current year [1982]. That is why it is necessary to /concentrate our attention on the benefits arising from cooperation with CEMA/ and to look for a partial substitute for purchases from capitalist countries (of raw materials, for example) in Third World countries.

Although the foreign-exchange rate policy evokes much displeasure among export producers, /rates should not however, be manipulated to raise artificially export profitability/ because this carries with it the danger of unwinding the inflationary spiral.

In speaking /of foreign-exchange allowances/, Minister S. Dlugosz stated that by virtue of this, foreign-exchange payments [wyplaty] have absolute priority. Improvement of this system should go in the direction of allowing for their [foreign-exchange allowances] flexible transmittal between enterprises which in the long run should lead to the use of bidding for contracts [przetarg] or to a form of foreign-exchange auctioning [gielda]. Such bidding will be experimentally introduced as early as next year [1983]. Also under consideration is the introduction of foreign-exchange allowances for trade with the first payments area [socialist countries] in order to make it possible for producers to accumulate funds for investment imports.

/Critical accents were dominant/ in the comprehensive discussion which evaluated current regulations and methods of managing foreign trade. It is impossible to touch upon all the thought trends of the discussion in a short account. That is why we shall concentrate our attention on the most important ones.

The issue of /the instability of rules and regulations and their short-term and temporary character/ was most frequently raised. The lack of long-range solutions makes it impossible to conduct an effective trade policy, to say nothing of more far-reaching strategies. Production plans for the coming year are currently already being settled while definitive solutions concerning foreign trade are lacking. For this reason, it was proposed that at least the general outline of the principles of the anticipated regulation changes be announced well in advance.

Attention was also called to the fact that /the influx of introduced legal acts, especially of executory regulations and their interpretation, is not always assimilated [dronzny]/. This is not conducive to the rapid dissemination of these regulations or to their proper use by producers and exporters. Some executory regulations, particularly in the area of financial matters are, in addition, interpreted in a restricting manner in relation to resolutions and statutes thus making them inconsistent with the spirit of the reform. Moreover, /there is a lack of adequately fast corrections of inefficient management tools/. For example, the issue was raised that the operational plan of the export industry has remained a dead letter and has not brought any preferential trade advantages to producers.

Another dominant trend of discussion was the /lack of sufficiently strong incentives for export production and for the export industry, which is particularly felt by producers in the face of competition from the "starved" domestic market. Within this context, tax relief for producers for export purposes, which was introduced by Resolution No 182, was considered as a step in the right direction but rather weak in effect, not to mention that it was very late in coming. On the other hand, acceptance as a criterion of only the results of the second half of this year [1982] (as compared to the second half of 1981) may indicate a high degree of randomness in the obtainment of this relief and may even constitute a "reward" for those who will currently start making up the export delays from the first half of this year [1982]. An increase in the foreign trade minister's award fund (so-called assignment contracts) was also announced quite late while their mobilization is bogged down with numerous requirements. As a result, the insufficient incentives for export may cause this fund to go unutilized.

A large part of the discussion was devoted to /foreign-exchange allowances/. While unanimously evaluating them in a positive light as /the most important (if not the only) effective export incentive/, the unsatisfactory efficiency in the functioning of this system was noted as well as the overly limited freedom in using ROD's [expansion unknown], particularly when it comes to making use of the funds accumulated around them for purposes of supplementing investment imports as well as for financing trade activity (commissions, insurance, canvassing, representations, etc.).

As yet there is no executive order in regard to interest on ROD's and the controversy continues whether they should have an investment [lokacyjny] or an evidential [ewidencyjny] character. The prevailing opinion is that foreign-exchange allowances should enter into the composition of enterprise assets and ought to have an investment character.

/The functioning of the foreign-exchange rate was also critically assessed/, especially its lower level when setting producer prices on basic raw and other materials as a result of which their import continues to be relatively inexpensive. Arguments were given for raising the rate of exchange, particularly that of the ruble, in order to encourage increased exports to the first payments area.

/Clearing foreign-exchange with foreign countries according to domestic prices/ (and not transactional prices) cuts the producer off from the conditions of the contract and from world market prices. This issue was also discussed in a broader context: namely, that producers feel removed from the direct contact with foreign clients.

Among the remarks about the activity of foreign trade enterprises was that made by industry concerning, above all, /the excessively high level of profit margins/. On the other hand, foreign trade enterprises [phz] complained about the considerable increase in costs, especially bank interest rates which at times reach half (and even higher) of the profit margin--it is they that bear the burden of crediting contractors.

In assuming an attitude on some of the issues raised in the discussion, Prof/Z. Sadowski/ stated that the mechanisms of the reform do not function by themselves but are determined by human attitudes. The weakness of incentive lies in that to pay well for a job well done, it is necessary to pay poorly for poor work; this second element is usually forgotten.

The task of economic policy is to /standardize foreign-exchange rates/. That is why a gradual increase on raw material prices is necessary in the case where a lower exchange rate was accepted at the time of setting these prices. This is the main element of foreign-exchange rate policy.

/The proposal of long-term standards is valid/ but under the present circumstances of a lack of stability, planning cannot be done from such a perspective. The first such attempt [of long-term standards] is the draft of a 3-year plan and the discussions surrounding it. Resolution No 182 had a clearly immediate goal--stimulation of increased exports this year [1982] yet. /Broader solutions are being prepared in the area of tax relief/; however, such relief must take on the character of exceptions while postulates in this field are very extensive and as an example, expenditures for developmental purposes will be entitled to such relief.

The system of operational programs during the current year [1982] was too broad and in 1983, it will be greatly reduced. /There no longer will be an operational program for export/.

At the conclusion of the conference, Prof Jozef Soldaczuk, director of the Institute of Trends and Prices in Foreign Trade [IKiC HZ] rose to speak. Prof Soldaczuk remarked that the most urgent task is to increase our exports and at the same time to improve management efficiency. The main export motivator is the system of foreign-exchange allowances which ought to incline enterprises to utilize funds rationally. A properly constructed tax policy also has a large field of action in obtaining these goals.

In thanking for participation in the discussion, Prof J. Soldaczuk informed those present that both the Institute of Trends and Prices and the Polish Chamber of Foreign Trade are prepared to render information and consultations on all matters related to the economic reform.

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ROLE OF INFORMATION SYSTEMS IN INCREASING EFFICIENCY VIEWED

Bucharest REVISTA ECONOMICA in Romanian Nos 46, 48, 19 Nov, 3 Dec 82

[Article by Nicolae Badea-Dinca, Ileana Trandafir, and Dumitru Popescu (Parts I and II)]

[No 46, 19 Nov 82 pp 22-23]

[Text] Romania's economy is presently involved in an extensive process of emphasizing and exploring the intensive aspects of its development, and of shifting from quantitative accumulations to a new, superior quality in all areas.

It is well known that the concern for designing and introducing data processing systems arose following the use of computers in a systematic approach to information and decision making processes in the economy and society. The data processing policy option encouraged by the Decision of the Plenary Session of the Central Committee of the RCP of April 1972, by other party and state documents, and by subsequent developments in this field, has led to a gradual growth of data processing in our country.

More Encompassing Nature of Data Processing

Concrete experience, available equipment, and the degree of preparation of the object system (socioeconomic unit in general), have led to an orientation toward centralized data organization and processing, so that by the end of 1981, the great majority of data processing systems placed in operation--at macro and microeconomic levels--were of the first generation, that is, information systems without data bases, without terminals, and without a satisfactory hierarchization and distribution of equipment, data, and applications.

We do not intend to analyze the causes for the discrepancy between data processing systems, which are at the first generation level, and available computers, which are in their third generation, with prospects of moving to the 3.5-4th generation. We will only point out that the gap throughout the world is of at most one generation.

Table 1

Indicators	Total	Of which: (%)		
		Centers	Offices	Stations
Information units	1479	7.2	62.1	30.7
Value of computer equipment	9.2 billion lei	55.4	37.9	6.7
Working personnel	48,000*	38	50	12

*Of the personnel total, 12,000 are operators of billing-accounting machines, which do not produce information support.

During the transition from the stage of no data processing, through that of pioneering, and on to its establishment as a factor of progress and civilization, deeply involved in the operation of economic, cultural, and social structures, data processing has accumulated technical, functional, and design resources, as well as professional competence and experience.

A large data processing infrastructure has been built (table 1) against the background of a general development of production forces, to include over 440 medium-sized computers operating under industrial conditions, 150 minicomputers, 270 microcomputers, about 1400 terminals, and equipment for primary data preparation and processing.

More than 3000 economic units, are already connected into the data processing infrastructure to various extents, and macroeconomic applications associated with priority branches (extractive and energy industry, agriculture, chemistry, metallurgy, machine construction, industrial construction) and with the analysis of the national economy (planning, statistics, finances, technical and material supply, foreign trade) have been formulated and implemented. Still insufficiently developed but very promising, are data processing applications for research activities, construction and technical design, as well as control and support of technical processes, especially at the microeconomic as well as macroeconomic scale (in electric power, gas distribution, irrigations, water management, traffic control).

We believe that our available data processing infrastructure, and the existence of an operating broad range of information system and applications at micro and macroeconomic levels, constitute a stage of development that is sufficiently advanced toward the formation of a National Information System (SIN), a stage with respect to which future evolution appears as a process of continuity, depending on the volume and structure of the resources that will be allocated to data processing, on the degree to which this activity is encouraged and accepted, and on the manner in which it organized and managed.

Data processing thus becomes more encompassing, including among other things the automation of information processes (production and management), computer control and support of industrial processes, complex tooling, and robots, the contribution of data processing to decision making and creativity, and the existence of specialized systems based on artificial intelligence. All these different applications are of course far from altering its unity, since it remains fundamentaly the same: information in an electronic form.

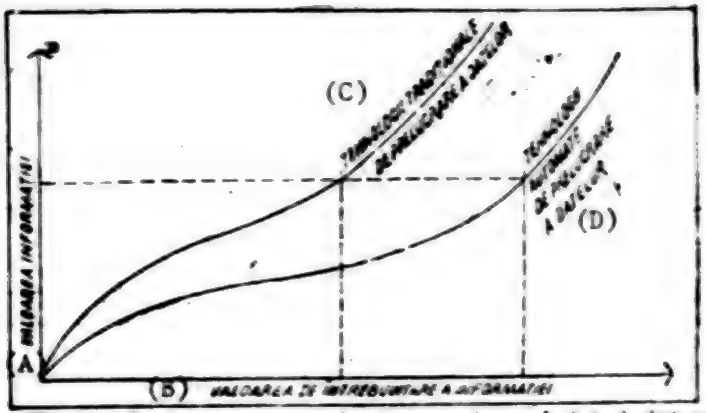

Fig. 1 — Evoluţia raportului valoare-valoare de intrebuintare a informaţiei in condiţiile utilizării unor tehnologii moderne de prelucrare a datelor

Figure 1. Changes in the value/value of information utilization ratio for modern data processing technology.

Key:
(A) Value of information
(B) Value of information utilization
(C) Conventional data processing
(D) Automated data processing

In processing a practically inexhaustible raw material, data; offering a finished product, information (indispensible to any technical, economic, social, and cultural activity); and basing itself on specific production technologies, programs and equipment, and on the use of manpower with a definite specialty, data processing acquires the attributes of a distinct branch of our economy. To these attributes which identify and delimit data processing as such, we add the fact that it has its own organization around specialized units, most of which operate under self-management and full individuality, and which are scattered through all the counties of the nation.

These elements acquire new dimensions and meanings in the light of the planned construction, around the CTCE (territorial center for data processing) structure, of a national computer network whose resources will be interconnected through the national data transmission network. We will thus reach the stage at which the data processing infrastructure will cable together the various components of the socioeconomic organs, playing a specific, irreplaceable role in the operation of the general mechanism of society, and influencing institutional, group, and even individual behavior (1).

Since data processing requires social labor and produces social usefulness, we can identify in this case as well, the concepts of value and utilization value for electronic information. The value of electronic information is given by the work hours used to obtain it under normal conditions from a social standpoint.

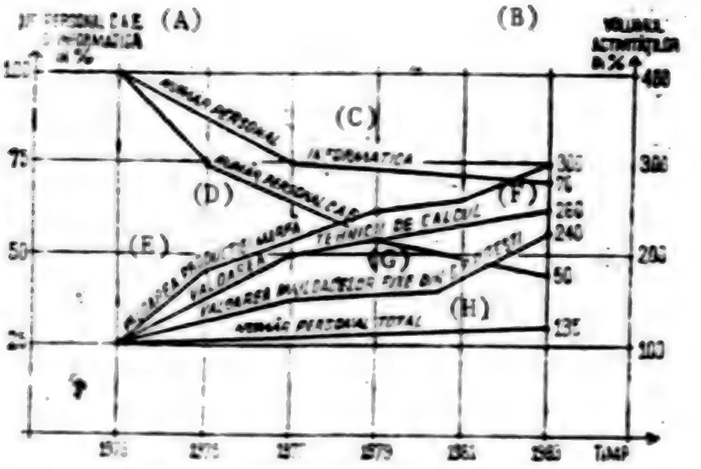

Fig. 2 — Dinamica personalului CAF și informatică și a volumului principalelor activități ale C.P. Pitești in perioada 1973—1983 (după Gh. M. Dinu, D. David)

Figure 2. Changes in CAF and data processing personnel, and in volume of major activities at the Pitesti Petrochemical Center, during the 1973-1983 period (from Gh. M. Dinu, D. David).

Key:
- (A) Number of CAF and data processing personnel in percent
- (B) Volume of activities in percent
- (C) Number of data processing personnel
- (D) Number of CAF personnel
- (E) Value of goods production
- (F) Value of computer technology
- (G) Value of fixed assets at Pitesti Petrochemical Center
- (H) Number of total personnel

Society is naturally interested in reducing costs and therefore product unit value. One of the merits of data processing is that in a short time period it has succeeded in reducing the time unit rate more than five-fold (960 lei/hour of computer time at present, compared to 4800 lei in 1970). In this way, the cost of information has become increasingly accessible and within the reach of most user units and organs. Moreover, many examples exist in which the cost per unit of information is lower with data processing technology than with manual processing (figure 1).

An analysis of the two curves shows that through the use of advanced technology data processing, it is possible to obtain information of higher quality at the same cost, or information of constant quality at much lower processing costs. The manner in which are financed the expenses associated with information systems, includes the costs of the information obtained by means of these systems either in the value of products (financing by

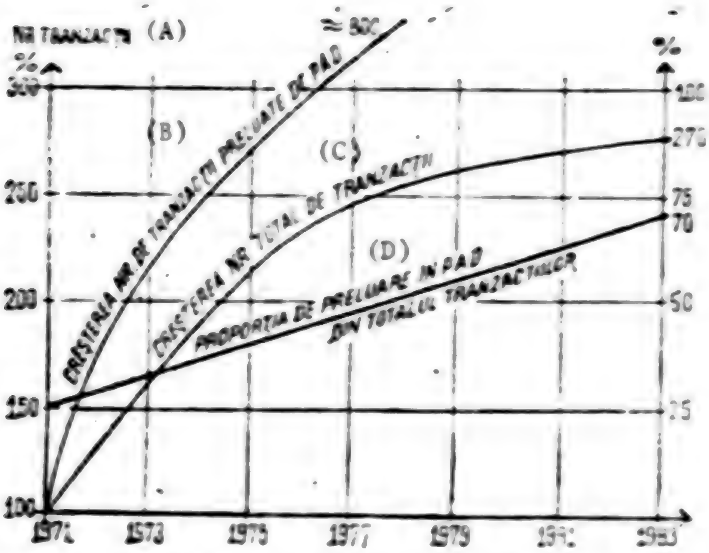

Fig. 3 — Dinamica numărului de tranzacții și proporția preluării în PAD la C.P. Pitești (după Gh. M. Dinu, D. David)

Figure 3. Changes in number of transactions and proportion of PAD at the Pitesti Petrochemical Combine (from Gh. M. Minu, D. David).

Key: (A) Number of transactions
(B) Growth in number of transactions undertaken by PAD
(C) Growth in number of total transactions
(D) Proportion of PAD performance of total transactions

production costs), or in the value of development and technologic progress factors (financing from new technology). In this way, electronic information acquires an economic value through the recognition that the costs for obtaining it are socially necessary.

The utilization value of electronic information that has social usefulness, expresses the significance that the information acquires or produces with respect to a given consumer (human or artificial); in other words, it expresses the means for efficiently satisfying the needs of man and society. The comprehensive attributes, and thus the quality of this utilization value, is higher than that which characterizes the information obtained through exclusively human processing and acquisition.

The concept of quality expresses the degree to which the utilization value of information satisfies social needs as a function of a number of parameters, among which are: availability, timeliness, accuracy, relevance, response time, and even psychosensorial and social parameters. The utilization value of this new resource is constantly changing together with changes in the areas of application of data processing and the development of microelectronics.

Efficiency of Information Systems

An analysis of the meaning of information production cannot be complete without studying the efficiency of data processing activities. As a comprehensive term, data processing efficiency takes into consideration all sorts of savings achieved in information production, in the use of information, as well as all expenses created by its production and introduction.

Two major aspects of efficiency become apparent from the above: the efficiency with which information production is carried out, and the utilization efficiency of information applications. We will delve at greater length upon the second aspect, since it is of greater concern at this time.

We are all undoubtedly aware of a number of studies and research projects performed both here and abroad, which--in an effort to measure the effects of data processing--have led to the definition of quantitative and qualitative indicators. We do not intend to examine this aspect. But we do want to point out as valuable and of great interest the development of methods for comparatively presenting the evolution of object systems, their parameters, and the dynamics of data processing, taken as the collection, transmission, storage, and processing of data, methods based on graphic displays, and simple computation algorithms.

In such cases, the efficiency of information systems is unquestionable, even though it is apparent in direct context. This is illustrated by the example of the Pitesti Petrochemical Combine (figures 2 and 3). For the ten years of the analysis, it is apparent that the management, administration, and office (TAF) personnel was reduced by one-half, while the value of fixed assets doubled, the production of goods increased three-fold, data processing transactions increased 2.7 times, and production personnel increased by 35 percent. The consequence is a relative economy of personnel of 540 percent made possible by an increase of 250 percent in the value of computer technology and of 800 percent in computer-processed transactions, and by the fact that the proportion of data processing in information handling has grown to 65 percent of the total. We selected this example for two other reasons: the time interval over which the effects were monitored, and the on-line presentation.

The last few years have also seen significant progress in the number and diversity of [illegible]es of economic efficiency obtained through data processing. Although we [illegible]fess the prudence expressed by other specialists in not creating a "myth [illegible] data processing," in continuing to note the positive effects of data processing utilization in economy and society we cannot fail to subscribe to the fundamental assertions which show that industry and modern society--especially under socialism--can no longer progress without data processing, automation, microelectronics, and cybernetics (2).

Electronic information obtained through a combination of these fields and correlated with scientific organization, is beginning to be recognized in Romania as well, as an important resource for increasing the productivity of social labor in all areas of activity, and in reducing consumptions and material costs through rational allocations and the rigorous establishment of consumptions of human and energy resources. It becomes an important instrument in maintaining and strengthening plan discipline, and in providing information and scientific means to the formulation, adoption, implementation, and control of decisions in society.

Many examples have shown that data processing participates in accelerating the valorification of natural resources and the development of the raw materials basis. For instance, the automation of evaluation and analysis calculations for useful mineral resources at the Cluj Mining Combine has shortened the time for finalizing the documentation for exploitation and research of deposits by about 60 percent; and at the Bihor mining exploitation, analysis of deposit research results is performed in one hour instead of the two weeks required with conventional methods.

Savings of energy resources have been obtained with data processing in gas distribution at the Tirgu-Mures IRIDG (Regional Enterprise for Gas Distribution) to the extent of 600 million cubic meters, representing 250 million lei/year; in electricity distribution networks, losses have been reduced by 5 percent (the value of savings per electric network enterprise being 3-3.5 million lei/year); and the savings obtained in the operations of the national power system have been equal to 60,000 tons of conventional fuel per year.

Significant contributions to the superior valorification of raw and other materials were made by the automatic optimization of pattern cutting plans; the mechanical enterprise Mirsa obtained annual savings of about 300 tons of metal in this way. The introduction of rigorous control in complying with specific material consumptions and the judicious management of stocks, have also determined significant materials savings; by these means, Automatica of Bucharest has achieved savings of about 10 million lei, the Hunedoara Steel Combine savings of 20.6 million lei, and so on.

Production increases from shorter manufacturing durations, and from a better utilization of production capabilities based on computer planning, programming, implementation, and control have been found in the majority of enterprises. Production increases in industrial, agricultural, and construction enterprises achieved through the use of data processing, are estimated to be at least 1.5 billion lei in 1981.

[No 48, 3 Dec 82 pp 21, 24]

[Text] In addition to savings of materials and energy, the computer management of technical processes determines a more rational utilization of production capabilities, significant improvements in production quality, a substantial increase in operating reliability, and a spectacular reduction in the size of conventional automation installations. As an example, the automatic control system for the two electric arc furnaces at the new steel department of the Hunedoara Steel Combine, has increased production capabilities by about 30,000 tons/year, and reduced electric power consumption by 1.7 million kWh/year. The net return is 7 million lei, which means a recovery duration of five months obtained through an efficiency ratio of 22 lei per invested leu. Computer control of the loading of Furnace No 6 at the Furnace Plant of the Galati Steel Combine, has led to savings of about 6000 tons of coke per year, while at the Flat Milled Products Plant, computer control of the finishing train of the hot strip mill has increased labor productivity by about 5 percent and brought products into strict compliance with technical tolerances.

Under the influence of information systems, the approach to industrial processes has evolved from econometric models toward models that increasingly include information intelligence among the direct factors of material production. In addition to the measurable effects, information systems in one form or another result in greater efficiency in the operation of the economy at all levels, order and discipline in technologic and production activities, higher levels of professionalism and competence, shorter periods for programming, introduction into production, execution, reprogramming (in some cases reprogramming being possible on demand), and shorter execution and decision cycles.

In addition to the examples of efficiency (3) selectively presented here, and generated by the use of industrial and economic data processing, we will briefly review the results obtained from the data processing support of research, and of technical and construction design, an area in which the efficiency of information systems is exceptional.

In this activity outstanding progress has also been noted in energy, machine construction, civilian and industrial constructions, electronics and electrical goods, chemistry, and metallurgy. The more than 1400 programs written throughout the country, enable the use of modern modelling methods, technical and scientific calculations, automatic formulation of design documents, or the efficient undertaking of complex projects in energy, chemistry, transportation, and so on.

Foremost in this domain is the growth in labor productivity--several fold, an increased number and quality of variants, intensified standardization and reutilization of projects, more accurate and relevant documentation, and economic efficiency. In hydroelectric power generation for instance, investment efficiency is increased by 10-20 percent with an average investment per objective of about 2 billion lei; concrete consumption is reduced by an average of 15-20 percent (from 600,000 to 490,000 cubic meters at the Dragani Dam, 10,000 cubic meters at Herculane, 25 percent at Suduc, Buzau); and in some cases, productivity increases of several ten-fold. If we consider that in order to fulfill the tasks assigned by the Decision of the Plenary Session of the Central Committee of the RCP of 31 March 1981, regarding the construction of 763 hydroelectric plants with more than 200 high dams during the next 20 years, then the average savings of 15-20 percent in concrete does become considerable, not to mention its ancillary effects (energy, transportation, manpower, depreciation, and so on).

The string of examples could continue with the use of computer-assisted design applications not only in specialized institutes, but in industrial units as well. In many enterprises, data processing provides 60-85 percent of the handling. The transformation of this volume of computer hours into man hours, and of instructions executed by the computer into conventional operations, would unquestionably demonstrate the irreversibility of computerization.

Today, however, data processing in society also includes many other areas in which we can similarly observe quantitative and qualitative effects. Medical data processing reduces health assistance and protection costs, hastens the advance of medical knowledge, and enriches the quality of information. Urban information systems can help avoid transportation, weather, and ecologic information crises. Educational, sociopolitical, legal, and public information systems (known under the general name of social process information systems) contribute to greater information objectivity, bring about changes in the status of professions, and add new values to social changes. Data processing in documents and culture will create data banks and lead to the use of video and audio displays, and will thus cause the information and humanities cultures to complement each other. The computerization of each of man's information activities certainly deserve a separate analysis.

For us, the beginning and accelerated interconnection of data processing components, and the achievement of a certain stage of integration into SIN, will satisfy such requirements as: foster the unified nature of information flow and accelerate the unification of sources of information; obtain programmed information, information about nonconformities to the plan, or information on demand; follow data from any level of management to tooling, shops, departments, operations, or economic, technical, social, or cultural processes; and optimize the centralization/decentralization relationship.

Factors Influencing Information Systems

The results obtained from both aspects of data processing efficiency encourage the use of new methods to evaluate the economic efficiency of information systems. This leads to several interesting conclusions, particularly in the design-implementation-utilization of data processing.

a) A dynamic, growing evolution is noted in efficiency indicators, starting from insignificant levels at the time of system implementation, and attaining high levels after about 3-[illegible] years of operation (in large enterprises), a finding that has otherwise been confirmed by specialized publications in other countries (United States, France, USSR, and so on).

b) Contribution coefficients can be determined for the various influences exerted on global efficiency indicators in units, on the basis of which one can differentiate the effects obtained from data processing from those obtained from improved organization, the introduction of new technologies, and so on. These coefficients can have values between 0 and 1, and can vary within any one unit from one period to another depending on the presence and importance of various factors during the analysis.

Monitoring the growth of efficiency indicators and the assignment of influence factors clearly require first of all a thorough knowledge and analysis of the object-user system (department, enterprise, central, county, branch, and so on), of its development, and of its behavior within the whole.

c) As experience is accumulated, it will become possible to show in addition to comprehensive efficiency indicators (such as duration of recovery of data processing investments), a number of sources of efficiency, and especially of specific indicators by branches or activities at the level of the national economy. Notable in this respect are the first attempts made by the computing centers of the Ministry of Technical-Material Supply and Control of the Management of Fixed Assets and of the Institute for Power Studies and Design, to define specific efficiency indicators in technical-material supply and in the planning of investment objectives.

We conclude by emphasizing that improvements in methods for evaluating the efficiency of information systems can be achieved only through a concerted effort from computer technology users and data processing specialists.

Analyzing the economic effects obtained through the use of computer technology in various areas of the socioeconomic activity, discloses a number of influence factors, the more significant of which will be discussed below. Their study precedes measures necessary to expand the efficiency obtained until now, to the scale of the national economy as a whole.

A first determining factor for obtaining large economic effects from computers, is the selection of fields and utilizations for this high performance but still expensive equipment, through the most judicious definition of man-machine tasks and best exploitation of the primary information processed. The efficiency obtained thus increases to the extent to which the computer becomes a means for using modern methods of technical and economic modelling, and adopts improved methods for calculating, storing, and processing very large volumes of information.

Also considered as especially efficient, is the gradual integration of data processing applications in industrial enterprises, starting with the design and redesign of products and technologies, technical preparation of manufacturing, and product quality control, all of them being computer assisted.

Improving the response time to various user requests is a second important influence of the efficiency of data processing. This factor is determined first of all by the availability and reliability of computer equipment, and by the diversification and adaptation of this equipment to applications. Bringing the computer closer to users through remote processing and by locating terminals at major decision centers or data sources is the only way to increase the efficiency of decisions and reduce the wait for computer results.

Greater efficiency and the assurance of high operational parameters in the utilization of information systems, are also influenced by the means used to collect input data; gradual replacement of conventional data entry on punched cards--and their large consumption of paper and manpower--with modern means of data collection, validation, and recording on magnetic tape, has become an imperative need under the present conditions of Romania's data processing development. These requirements, expressed by the overwhelming majority of computer users, are addressed both to the Romanian electronic equipment industry, from which we expect new types of higher quality mini and microcomputers, universal and specialized terminals, and data collection equipment, and to service units, from which we expect faster and higher quality repairs and maintenance of existing equipment.

The efficiency of data processing applications continues to be determined by the receptivity of users, and by their level of training and degree of participation in defining requirements and in constantly improving their applications. Notable as exceptionally positive--from an analysis of some 10 years' experience with information systems in our country--is the increasingly active role assumed by managements of socioeconomic units in designing and using data processing, and in evaluating the economic effects of modern computer technology.

The encouragement and capability of users to introduce and understand computer technology, depends on at least three factors: learning about data processing on a social scale, relationship with equipment, and relationship with information technology. The convergent action of these three factors must bring man and computer closer together. It is to be believed that Romanian research, and the progress made in the training and learning of data processing, will assure the fulfillment of these conditions.

In analyzing the influences of the efficiency obtained from data processing, we cannot overlook the need to continue to reduce the expenses of user units in designing, implementing, and exploiting information systems. Although the ways and means to reduce these expenses could be the object of more extensive analysis, we believe that the defining elements for higher efficiency in data processing services are on one hand a reduction in the cost of equipment--and ultimately of electronic components--and on the other hand a reduction in the cost of designing and implementing data processing systems and applications. This second element is in turn determined by: the large scale use of standard solutions, and of advanced design and programming techniques leading to industrial performances; the transition from a concept of isolated data processing equipment components, to a system concept; greater structural and functional flexibility; and of course, last but not least, a continued improvement in the professional level of data processing work.

One factor of efficiency, and of effectiveness and accuracy as well, in the flow of information throughout the economy, which must not only be studied but also tested, is the transition to the computerization of the many connections which each information system has with its environment. What we have in mind is the predominantly computerized statement of inputs and outputs generated by the flow of materials, manpower, finances, information, and fixed assets. Experiments in well defined economic and geographic space could also provide important information about the potential of data security and confidentiality, as well as about the steps that must be taken to adequately reflect in legislation the carriers of information and even of electronic information.

The degree of technical endowment has played and will continue to play a determing role in terms of effective efficiency, diversification of data processing applications, and even of the technical and design level at which these will be achieved.

The still low level of our technical endowment shows that we are still lagging in this respect. We are primarily concerned with the average of only 34 computers per million inhabitants in our country, against 75 in Bulgaria, 130 in Hungary, 200 in Yougoslavia, or 400 in Russia (4), and with the number of terminals--a major element in the endowment structure: two terminals per computer, or one terminal per 178 Kb of internal memory, or less than one terminal per enterprise in the national industry, or one terminal for more than 2400 workers, compared to two terminals per hundred workers, as planned in France for 1985.

The creation of a first version of SIN, and the consequent achievement of a certain level of efficiency in the society, is directly determined by the assurance of endowment levels and structures comparable to those listed above. This expectation for the information systems structure of the economy is absolutely necessary to the society which we are building.

Humanity will always seek more information and solutions to use as efficiently as possible. For man to remain an active, creative entity, specific forms of information technology must pervade the quasi totality of human existence.

In referring to this, the UNESCO general director, Amadou Mahtar M'Bow, expressed his belief that data processing and telecommunications will create considerable consequences on "the working conditions and utilization of manpower, the structure of the active population, the life of collectivities and families, the place of the individual, the evolution of culture, and in particular, the evolution of intellectual and artistic creation." As we understand it, they will affect the relation of man to the means of production, accelerate the shift from physical to mental work, reduce the length of the work day, and greatly improve the performance of computer-assisted work.

In this situation, we must also ask whether the concept of productive work under which we currently operate, including its use in regulatory acts, does not already have a very limited meaning compared to the area it covers and its effective content. In this context, we support the idea that the work incorporated in data processing production also belongs to the sphere of productive work. The effects that information technology has and will have on production forces and relationships, on their relative values, on the growth of human personality, on political and state life, and on public life, are becoming increasingly evident. This impact will occur in any type of society; but the difference will be in the purpose and distribution of the uses made of the results. Data processing will contribute to the development of the socialist society, which is interested in improving its performance--including through the use of information technology, as a system capable of generating high economic efficiency, strong social responsibility, and a broadly democratic political framework.

FOOTNOTES

1. Mihai Draganescu, Marius Guran, Nicolae Badea-Dinca, et al: "L'informatique, les problemes du monde d'aujourd'hui et l'avenir de l'humanite" [Information Technology, Problems of the Modern World, and the Future of Humanity], UNESCO study conducted by the Central Institute for Management and Information Technology (ICCI), Bucharest, Romania, 1981.

2. Mihai Draganescu: "A doua revolutie industriala. Microelectronica, automatica, informatica--factori determinanti" [A Second Industrial Revolution. Microelectronics, Automation, Information Technology--Determining Factors], Bucharest, Ed. Tehnica, 1980; and Simon Nora, Alain Minc, "L'informatisation de la societe" [The Computerization of Society], Paris, 1978.

3. Mentioned at the two workshops on Efficiency of Data Processing Introduction in the Economy, organized by ICCI with management staffs in the economy (Brasov, 1981, 1982).

4. The levels for the respective countries are valid for 1980.

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